

Title: The Pennsylvania farm journal, v. 2

Place of Publication: Lancaster, Pa.

Copyright Date: 1852

Master Negative Storage Number: MNS# PSt SNPAG086.2

**FILMED
AS
BOUND**

Volume 2



VOL. 2.

LANCASTER, PA., APRIL, 1852.

NO. 1.

THE FARM JOURNAL.

S. S. HALDEMAN, } EDITORS.
A. M. SPANGLER, }

Protection to Sheep against Dogs.

The following extract from a letter received by us from an intelligent farmer of Fayette county, forcibly addresses itself to every friend of the Sheep growing interest in Pennsylvania. We should like to see the suggestions of our correspondent carried out, believing that a law taxing dogs would be highly acceptable, to those portions of the State at least adapted to Sheep raising. As remarked by the writer, there is poor encouragement to enterprising men to pay large prices for fine Sheep, and run the risk of having them destroyed by hungry curs. We have been the friend of the dog, and should regret any legislative action that would in any way defraud him of his rights; but a Sheep-killing cur has no claim upon our sympathies. Every possible encouragement should be extended to those counties of our State, where the soil &c., is adapted to the raising of Sheep. If fostered as it should be, wool growing will become one of our most important interests.—It has been demonstrated beyond a doubt that large portions of Western Pennsylvania, possess all the requisites for successful Sheep husbandry. We trust, therefore, that those who are ready and willing to invest their capital in this direction, will be afforded such protection against dogs, as will effectually preserve their flocks from destruction.

With one of the best counties in the State for growing wool, we have, I think, but two large flocks in our county, Judge Ewing's and Asbury Struble's. Our farmers have been driven from the sheep business by the repeated severe losses they have sustained from dogs. Many of our farmers rear none, many others a sufficient number only for domestic use. Messrs. Ewing and Struble have both suffered severely by dogs; the latter estimates that his loss,

at a low calculation, has not been less than twelve hundred dollars. Can there not be some mode devised to rid the State of so great a nuisance; as they are almost, if not entirely, a useless animal. It is generally the case that the poorer the man, the more dogs he thinks it necessary to keep to guard him and his property. Almost every negro family is entitled to a full pack of half-starved creatures, forced in self-preservation to prey upon something. Would not our State considerably increase her revenue, and confer a great benefit on our citizens, both the sheep grower and the poor man, by levying a heavy tax on dogs. A benefit to the poor (if he disposes of his dogs), because he could make two hundred pounds of pork for his family, with the food it takes to feed his dogs; and to the wool grower because it saves him his flocks. It is a poor stimulus to invest money in fine bucks and ewes at from two to five hundred per head, with the chances that the increase will not equal the loss by dogs. Can you not, through your Journal, call the attention of the farmers to this subject, that there may be a vigorous and united effort for their expulsion. As the practical, scientific and progressive leader in our State among farmers, can you not devise some plan which will legislatively protect this great interest. It should be a State, not a county regulation. A tax say of \$3.00 when a man keeps but one dog; \$5.00 for the second, &c., would bring to the treasury with the present number of dogs a large amount. A man whose dog was of use to him, could pay three dollars, if he was of no use, he should thank the State for causing him to dispense with an expensive and useless animal.

EXPERIMENTAL FARM.—The University of Toronto, has granted lands to the Board of Agriculture, of Upper Canada, for an Experimental Farm. Thus it is we are surpassed in our indolence.

TO FARMERS.—To double the crops on most farms, about all that is necessary is for our agriculturists to sell off one-half their land, and with the proceeds buy manure for the other. The larger a farm, the less a man grows to the acre.

Communications.

Translated for Farm Journal.

Agricultural Chemistry, No. 8.

As regards special manuring, a chief object is to supply the soil with one or more ingredients, of which it has been ascertained to be wholly or in part deficient. In this connection it is proper to call attention primarily to a great and very prevalent abuse, which is a source of very serious loss to most farmers. When a field begins to be unproductive, very few think of doing anything else than to supply it again with a full dressing of barnyard manure. It never occurs to them to inquire whether the diminished fertility may not result from causes which can be removed at little cost by the supply of some particular ingredients which the soil needs. Yet when such is the case, the application of mineral manure is downright extravagance and waste, because we thus supply probably only one or at most but a few of the deficient ingredients which could be furnished more cheaply by some other substance. A few examples will serve to elucidate this. When a black crumbling soil contains no silicic acid, or its humus has become carbonized, or sour, we may indeed supply the needed silicic acid by a dressing of barnyard manure, since it is contained in the straw which is used for litter. A portion of the carbonized humus, also, will be decomposed alike by the ammonia developed, and the more rapid decomposition of the manure which ensues from the stirring and loosening of the soil.—But the remaining ingredients of the manure serve no other present purpose but to increase unnecessarily the quantity of similar substances already contained in the soil. It were much better and cheaper to dress such land with silicious earth, fine quartz sand, or marl, or unslacked lime. In other cases, a similar application may be made of liquid manure.—It often happens that a soil rich in humus, has become exhausted of the incombustible elements required by plants; and it is customary to dress such land with barnyard manure, though a supply of liquid manure would be much more serviceable, as it holds in solution a large amount of fixed salts. If sulphuric acid have occasionally been mixed with the liquid manure, it will prove all the more efficient, because its ammonia has thereby been neutralized, and it is no longer in a caustic state. Again, if we have land which is deficient in humus, but which, judging from its composition—being clayey—may be presumed to contain a store of incombustible elements, the usual practice is to dress it with barnyard manure, though it would conduce much more to render it speedily productive, if it were dressed with muck or swamp mud and liquid manure, or lime.—When soil otherwise good is unproductive from want of calcareous earth, we dress with fresh slaked lime, or with marl, and soon realize better results than

would follow from a dressing of manure alone. A light and sandy soil may be rendered very productive by a dressing of clay, the constituent elements of which are in part rendered soluble and serve as nutriment for the crop. If a soil be deficient in phosphoric acid, as is the case when the grain produced is small, ill-formed, and imperfectly filled, a dressing of blue or potter's clay, in combination with muck or swamp mud, or of bonedust mixed with dilute sulphuric acid, will not fail to produce excellent results. If the soil be sour, a dressing of fresh slaked lime, of marl, or of ashes, will be much more serviceable than the application of barnyard manure.

In the last place, we have to consider that mode of manuring which is designed to produce in perfection certain specific crops which we desire to cultivate. Plants and vegetables, in accordance with the idea that they are always able to absorb from the atmosphere, in sufficient quantity, the gaseous elements to be derived therefrom, have been subdivided into three classes, according to the composition of their ashes—namely, *alkaline* plants, in the ashes of which potash predominates; *calcareous* plants, the ashes of which contain principally lime, and *silicious* plants, the ashes of which are composed chiefly of silica.—As the alkaline plants require large supplies of potash, they thrive best in soils containing most clay, as also in land freshly manured. On the other hand, calcareous plants require lime, whilst for silicious plants, sand or quartz earth is indispensable. But, in addition to these ingredients, the soil must contain also a due proportion of the other alimentary substances heretofore enumerated. Thus a plant will not thrive though it find in the soil an abundance of the particular ingredient required by the class to which it belongs, if the other ingredients be not present also, and the character of the soil be not propitious—as when it is too compact, too wet, or too dry. It is therefore more correct to say that each plant must find in the soil an ample supply of the peculiar ingredients or elements required by its class, whether they be naturally contained in it or have been introduced in the course of tillage. It is undoubtedly safest, however, to assume in general, first, that a soil must contain in due proportion and quantity all the substances required for the growth of cultivated plants; and, secondly, that it is well, nevertheless, to introduce in increased quantity the particular substances which the plants we design to cultivate are known to require; unless we are assured that they already exist in the soil in adequate quantity. These propositions harmonize perfectly with the current practice. Thus it is customary to cultivate crops which require certain substances for their thrifty growth and full development, in soils which we have ascertained contain an abundance of those substances. And if a plant do not thrive in a particular soil, we usually manure the land and endeavor

or thus to supply the deficient element or substance. Occasionally also we meet with a soil in which, though it has been well manured, the crop cultivated fails to thrive. The cause of this is to be found chiefly in the fact that the soil is deficient in certain substances which the manure used was not calculated to supply in adequate quantity.

If the principles here indicated be applied with judgment and care, larger crops may be produced, at much less cost, than can be effected by the use of barnyard manure alone, if we are but careful to observe, in the first place, whether the soil has not, on the whole, been already exhausted and rendered incapable of supporting vegetation; and, secondly, whether it is likely that it contains the particular substances of which the crop designed to be cultivated requires larger supplies. This can be ascertained accurately only by a chemical analysis of the soil; though there are certain characteristics and indications enabling us to judge whether the soil contains the required substances or not. With due regard to these indications and probabilities, we shall now proceed to notice the principal crops cultivated, and the elements they contain and require.

1. **Tobacco.** In this plant the combustible elements decidedly predominate. Besides carbon, hydrogen, and oxygen, tobacco contains also a considerable quantity of nitrogen, which is found in it in the form of ammonia. But among its components are also potash and lime, less phosphoric acid, and very little of the remaining incombustible elements. Hence it would seem to be most advantageous to cultivate tobacco on land dressed with fresh barnyard manure, so that the ammonia may be absorbed as it is developed. But as nitrogen and potash are specially important constituents of this plant, it can be profitably cultivated without barnyard manure, if the soil be not totally exhausted but contain the requisite substances for the production of carbon; and instead of dung, we may employ nitrogenous substances, such as horn shavings, malt sprouts, hair, &c. If tobacco absorb too much ammonia, its perfect development will be prevented, which is the case accordingly when horse dung has been used, and the state of the weather was favorable to the production of ammonia. As tobacco requires and absorbs but little phosphoric acid, it may properly be followed in rotation by a crop of winter grain.

2. **Potatoes.** Among the combustible elements contained in this vegetable, the carbonaceous matters (starch) predominates greatly over the nitrogenous (gluten), though the latter are never wanting. If by the use of strong nitrogenous manures, the nitrogenous matters become predominant, the tubers will contain mucilage and gluten instead of starch, and thus become watery and unserviceable. Of the incombustible elements, the potato contains potash, lime, silicic acid and sulphur, with but a small quantity of

phosphoric acid. Judging from these ingredients, the potato should be cultivated in soils containing a large amount of matter suited for the production of carbon, and but little of such as is fitted for the production of nitrogen. It should, therefore, not be grown on land recently dressed with fresh barnyard manure, and least of all in such as has just been manured with horsedung. It succeeds best after clover. Wood ashes may also be employed with good results where we have reason to suspect that the potash of soil has been in great part consumed by the preceding crops. As the potato requires much potash and carbon, it is not a suitable precursor of wither grain, and where circumstances require that fresh barnyard manure should be used for this crop, it should be plowed in in the preceding autumn.

3. **BEETS.** The predominant elements of beets are mainly carbonaceous, consisting of sugar, mucilage, &c. The nitrogenous elements are greatly subordinate. Of the incombustible substances the more important are potash, soda and lime; though phosphorus, sulphuric acid, and muriate of soda or common salt are also found in not inconsiderable quantity.—Such being the composition of the sugar beet, it is accordingly to be cultivated in land containing much old or well ripened humus and only a small proportion of nitrogenous ingredients. On freshly manured land the composition of the beets produced is very different. In such the nitrogenous elements predominate, and instead of saccharine matter, saltpetre and ammoniacal combinations are produced. Now, as nitrogenous elements are more nutritious than such as are mainly carbonaceous, it follows that beets intended to be fed to cattle should be grown on land containing large quantities of nitrogenous substances, such as are supplied by fresh barnyard manure.—Moreover, as beets require much phosphoric acid and potash, they are a very unsuitable crop to precede a cereal grain.

4. **RAPE.** Oil consists mainly of carbon, hydrogen, and oxygen, which substances can readily be supplied to the soil by manuring with the ordinary barnyard manure. But the seeds and husks or hulls contain many nitrogenous elements, such as phosphoric acid, sulphur, &c.; whilst the ashes of the straw or haulm consist chiefly of potash, some lime, soda, and sulphuric acid, with a small proportion of phosphoric acid. It is hence apparent that besides carbon and nitrogen, Rape requires many of the incombustible elements, and that consequently this crop demands liberal manuring and repeated plowing to transform the fixed elements which the soil contains into a suitable soluble state. As Rape takes up but little phosphoric acid, it is a suitable crop to precede winter grain. And since its ashes show that it requires much lime and sulphur, and as it elaborates its nitrogenous constituents out of ammonia, it is advisable to give the land on which it is to be grown a dressing of gypsum, if deficient in calcareous matter.

For the Farm Journal.

Mr. Gowen's Address.

There are few individuals in this country entitled to more praise for the aid rendered the agricultural community than my respected friend, JAMES GOWEN, Esq., the venerable President of the "Philadelphia Co. Agricultural Society;" and he is so well known as a *model farmer* and the rearer, at great expense, of some of the finest cattle in our country, that any attempt at eulogy on the part of so humble an individual as myself would be a work of supererogation.—His Address delivered before the "Lancaster County Agricultural Society," is a work of no inconsiderable merit, and will impart much useful information to the farming interest. I have read it carefully and with lively satisfaction.

I must be permitted, however, to dissent from one or two statements contained in the Address, where he speaks slightly of the use of lime and in condemnation of the practice of plowing down green crops. On page 20, Mr. Gowen says:—"In the general, LIME is so wasteful and ravenous a cook, that he sometimes consumes more than he furnishes to the family of plants it is intended he should provide for." . . . "Light sandy micaceous or isinglass, red shale and slaty soils, may in general be benefitted by dressings of lime; but on clayey limestone soil, I should deem its application unnecessary, if not injurious."

I do not pretend to possess much information in regard to agriculture, but the little I have obtained is rather of a practical character. I take most of our agricultural periodicals, and read considerable upon the subject; but, after all, I find the farmer is much of his time *working in the dark*, and that, without *practical knowledge*, he will not be likely to attain the object of his calling. During my ten or twelve years pupilage as a farmer, I have striven to improve my soil by the use of such fertilizers, as would, in the end, produce the greatest results, with the least outlay of capital. One of the cheapest and best fertilizers I have found is LIME, and I have used it with complete success upon limestone as well as other soils. More than two hundred acres of my land are limestone, and much of it "*clayey limestone soil*." Twelve years ago, a considerable proportion of this soil had been so much reduced by successive croppings, principally of rye, that it was incapable of producing scarcely twenty bushels of corn per acre. It will now produce, in a good season, three times that amount; and I attribute this improvement in the soil mainly to liming and *plowing down clover*. On the poorest of this soil, in the twelve years referred to, one hundred and fifty bushels of lime per acre have been applied, at three different periods, at the rate of fifty bushels per acre at each dressing, and its efficacy is perceptible to the dullest intellect. The applications of lime have increased the hay crop three fold, and (as I sell no hay but feed it all on the

farm) the grass of course has so much improved the manure heap, that where I formerly had one load of manure, I now have at least *four*. And this too from limestone soil. I admit that lime in general is more beneficial to other soils than limestone, because nature has supplied the latter with this ingredient to some extent; but to deny its wholesome influence upon limestone soils altogether, is to deny that I can see. An excessive or injudicious use of lime upon any soil will be attended with injurious consequences. A superabundant application of stable manure will also defeat the hopes of the farmer. Land, in general, like the human stomach, is more healthful without *over-feeding*.

It may not be inappropriate to refer to the advantages of lime to lands in England. I extract from a work by Fessenden. "On the Mendip lands in Somerset, by the application of lime, the value of land was raised from four shillings to thirty shillings per acre; and dung, which previous to liming had no sensible effect, operated after its application as on other lands. Macclesfield forest in Cheshire, and vast tracts in the northern and more elevated parts of Derbyshire, and adjacent districts, have been astonishingly improved by the same process. In maiden soils of a tolerable quality, the richest manure will not enable them to bring any crops, but those of oats or rye, to maturity; whereas, if they receive a sufficient quantity of lime, crops of peas, barley or wheat may be raised to advantage. The benefit resulting from the use of lime has been indisputably proved in the same form; *for the richer parts that were left unlimed were uniformly inferior in produce to the poorer that had been limed, during a period of not less than twenty-one years, under the same course of management.*"

The usual custom in this community to some extent now, is to apply lime mostly as a top-dressing, late in the fall on stubble after wheat, at the rate of from thirty to fifty bushels per acre, and to repeat the application once in six or eight years; but in no case to apply lime and stable manure at the same time. With this process our lands are annually improving, and a constant increase in the quantity of grain and grass is the result.

There are a few farmers living in Buckingham valley (a limestone valley) who think that they can procure no article, for the same amount of money, to benefit their lands so much as lime; and without being at all invidious, challenge a comparison of soil and farming with any of the successful farmers of Philadelphia county, with all their advantages of access to market for all sorts of manures. Our lime has made the "solitary place to blossom as the rose."—Lands that were hardly worth cultivating in parts of this county and the adjoining State of New Jersey, are now making their owners rich mainly by the judicious use of lime. I am no chemist or geologist.

and cannot speak of farming scientifically. I only refer to facts, which sometimes are stubborn things, and point to the daily improvement of our soil by the use of lime, as a justification of my position.

In conclusion, permit me to say, that lime and good stable manure will enrich almost any land if properly applied:—And that, when they cannot be obtained in sufficient abundance, clover or other green crops (with a top-dressing of gypsum or plaster of paris) *plowed down*, will be found important adjuncts.

WILLIAM STAVELEY.

Partridge Hall Farm, Bucks co., Feb. 22, 1852.

For the Farm Journal.

Curing of Corn Fodder—Cutting for food.

MR. EDITOR:—The January No. of your Journal contains an article on this subject, by R. Mansfield; which induces me to give my humble opinion on the same subject, although I may differ somewhat from that gentleman in the method I pursue.

My custom is, to cut the corn and fodder close to the ground, and shock it against three or four stalks left standing, and tied together with a few blades or a little straw as a support. When the shock is large enough, (which may be from 36 to 48 hills) it is well tied with a good band of long straw. Thus the shocks are well secured from the effects of the storms, which might otherwise blow them to the ground.—The tops are kept close, which prevents the rain from penetrating them, and the juicy butts are set sufficiently wide apart to admit a free circulation of air to dry the fodder. In this condition it is left till husking time, when the corn and fodder are separated. The fodder is then tied into bundles, and when perfectly dry, is taken to the barn or shed and mowed in the following order: The first covering is, to set the bundles upright, the butts on the floor; and the second is laid down flat, like grain, to prevent breaking in while at work; the third is set on end like the first, and so on. This is to keep it loose, and admit air to prevent the fodder from becoming musty; which cannot well be prevented when all is laid down flat in the mow. It is a well known fact, that corn fodder cannot be left in the field till the saccharine juice of every stalk is dried up, without injuring the fodder materially. But by my way of mowing, the injury it may suffer by standing too long in the field, as well as becoming musty in the mow, is prevented.

I am now ready to begin feeding, which is done when cut fine. I have a cutter and crusher, (manufactured by E. Potts, Valley Forge, Chester county,) which I attach to the horse-power. With this machine I can cut and crush from 150 to 200 bushels in an hour. This makes the hard stalks almost as tender and manageable as the blades, and there is no difficulty in feeding. Cattle eat it very readily in this state, and when mixed with meal and scalded or steamed, it is excellent for milk cows, or for fattening cattle. One ton fed in this way will feed more cat-

tle and to more advantage, than two tons in the ordinary way. Almost any farmer can clear the price of the machine the first year.

J. S. KELLER.

Orwigsburg, March, 1852.

For the Farm Journal.

Profits of Keeping Fowls.

MR. EDITOR:—As the fowl mania appears to have been prevalent in some parts of the country for a few years past, and having seen some very exaggerated statements, in regard to the large profits to be derived from keeping a large stock of hens for laying, raising chickens, &c., and on the contrary, having heard it positively asserted by many of my neighbors that a hen, if well fed, will consume in a year, grain or other food worth more than double the value of the eggs she will produce in that time; I determined to ascertain whether any or either of these statements were correct.

I accordingly commenced operations on the first day of January, 1850, by selecting seventeen hens and one cock from our other stock of fowls—they were a mixture of Jersey Blues and common breeds, and were considered in these parts good layers and of large size—the hens weighing 5½ to 7 lbs. each, and the cock 10 lbs. I appropriated part of an unoccupied frame building for their use, put up suitable fixtures for them to roost on, and sundry boxes and old flour casks laid on their sides, with a little hay or straw in them for nests to lay in. The door of this building opened into an adjoining yard of about 25 feet square, and was kept open night and day in summer, but shut every night in winter, and if very stormy or cold weather it was only left open about five or six hours daily. There was also a lot of ground adjoining the yard, containing about a quarter of an acre, occupied as a nursery of young fruit trees two years old from the graft, surrounded by a good board fence; through both of which, yard and nursery, the fowls were permitted to roam at pleasure, the feathers of one wing of each being cut to prevent them from escaping. They were fed regularly, morning and evening, principally with corn or corn meal, occasionally mixed with wheat, bran or shorts, and a few boiled onions, and some refuse meat from a butcher's shop. I ascertained by actual measurement that the quantity of corn or its equivalent of other food consumed, daily in the fall and winter, half of the year, was three quarts, and in the spring and summer half, (young chickens and all included) or but little over half that quantity. The whole quantity of food consumed throughout the year was equal to 27 bushels of corn, worth here, at market price, 45 cents per bushel (part of the time corn sold for 40 cents and a part of the year for 50 cents.) The number of eggs were set down immediately when brought in, but as we were not particular to mark down dates, I can only give the aggregate for this year. I find on adding up the account, we obtained 1308 eggs which

were sold for \$12.75, averaging little less than 11½ cents per dozen. None were sold over 15 cents per dozen, and some as low as 8 cents per dozen. We raised 27 chickens, the rats killing or carrying off all the others when small. Three of the old stock died, which when replaced out of the young ones, left but 24 to dispose of, which brought on an average, 18½ cts. each, on account of extra size and quality; the common price being 12½ cts. each. The eggs of those fowls were larger than common, twelve of them generally weighing as much as fifteen or sixteen of the common kind, but we could not sell them any higher on this account, as an egg appears to be an egg large or small. The whole account sums up in this manner:

Cr. By 1308 eggs sold for	\$12 75
" 24 chickens sold for	4 50
	<hr/>
	\$17 25
Dr. To 27 bushels of corn, at 45	
cents per bushel,	\$12 15
	<hr/>
Leaving a nett profit of	\$ 5 10

I forgot to mention that they had a constant supply of water. The manure was saved and mixed with a quantity of wood ashes and plaster, and applied as a top-dressing to our corn, by scattering about a gill of the mixture around each hill, after the corn came up. The crop was good, but I cannot say whether it was any better on account of the manure applied; but hope to ascertain more satisfactorily next season.

Yours, &c., T. W. M.
Lewistown, March, 1852.

For the Farm Journal.

Applying Bone Dust to Indian Corn Crops.

To the Chairman and members of the Executive Committee of the Montgomery County Agricultural Society:

GENTLEMEN:—Having at the last meeting of our Society, been requested by our late much esteemed President, to favor him with my views as to the best mode of applying bonedust to the Indian corn crop: in order that others may have the opportunity of benefitting by any information in my power to impart, I have chosen to make it the subject of a communication to this committee. If, in your estimation, it contains any matter that could prove useful to the Society, or to the farming public at large, it is at your disposal.

In discussing the attributes of an artificial manure, and dilating on its merits, too little attention is generally paid to the fact, that no one salt (or metallic oxide combined with an acid,) is of itself more than a specific. In agriculture, as well as in medicine, wherever we attempt to cure all diseases with one remedy, we must meet with signal failure. Bonedust has been extolled by those who have used it successfully, into something that has all the attributes of "the mother's milk;" and many have been led to believe, that it contains all that is required to render

the most barren land fertile. But such is not the case; it is far from being a *panacea*.

Many necessary ingredients to form a good soil might be absent, that would not be supplied by bone-dust, no matter in what form we present it to the soil. Bones contain about 66-100 of earthy or inorganic matter, the balance is organic matter, rich in carbon and nitrogen. If we pulverise the bone and use it in its natural state sowing it broadcast on the ground in sufficient quantity, time will decompose it, and à fur et à mesure as the organic matter undergoes petrefaction, it will furnish nitrogen to the plant, and the phosphate of lime no longer protected by this covering, will dissolve in the water impregnated with carbonic acid, always to be found in a rich soil. In this way it would for a length of time, furnish phosphoric acid to the plant, and we would have the benefit of the organic, as well as the inorganic matter contained in it.

But any effort to make our soils, by artificial means, as replete with the mineral substances as those of Ohio, (100 parts of which contain 1½ of phosphate of lime) would be very expensive. To avoid this difficulty, as far as possible, it has been devised to present to the plant the phosphate of lime in that state, in which it is most easily and speedily absorbed by the roots, and thus, with much less in quantity of material, offering to the plant the same amount of surface for its roots to act on. To this end, it is dissolved in sulphuric acid, and applied to the ground in a liquid state. You will easily perceive, that when applied in the liquid state, that all parts of the substance are presented immediately to be acted upon, and that when applied in pieces of considerable size, enveloped as it is, each particle being covered with a coating of gelatine and fatty matter, substances of slow decomposition, much less opportunity is afforded to the plant to absorb it. By these means we will be able to dispense with, to a great extent, so large an outlay at one time, and still be able to effect our object.

It has been recommended by some gentlemen of considerable attainments and research into these matters, to dissolve the bones without any further preparation than grinding. Of this I do not approve, on the score of economy. I would prefer dispensing with the grinding, and in lieu thereof, after having dried them, by the addition of a small quantity of light wood, burn out all the inorganic matter. This leaves the bone pervious to liquids and easily attacked by the acid. It also saves the trouble of grinding, while in many localities it is an operation not easily procured to be done.

Bones we have seen consist of about 34-100 of organic matter, rich in carbon. When sulphuric acid is brought in contact with organic matter, containing carbon, mutual decomposition ensues; and the result is, that carbonic acid and sulphurous acid are formed at the expense of the carbon of the organic matter

and the sulphuric acid. The carbonic acid escapes, but unless we have present an excess of sulphuric acid, which is seldom the case, the sulphurous acid will combine with the lime and form a salt, whose effect is positively injurious to the growing plant, owing to its avidity for oxygen. It operates injuriously in much the same manner as protoxide of iron. In any event, we obtain no benefit from the presence of the organic matter, as when we have dissolved the bones in the acid, nothing remains of it; and we have suffered considerable loss of acid.

If, therefore, we dissolve the bone after it is burnt, we afford to the plant phosphate of lime in the most divided state, and at the cheapest rate possible.—However, it is not necessary that we should use sufficient acid to render the whole mass liquid, and unless the dose applied be very small, I would prefer the use of about 20lb of acid to the 100lb of bones (before burnt). If the acid is diluted with four times its own weight of water, by the addition of sawdust, it can be dried so as to be easily handled, and the moisture of the ground will sufficiently dissolve it.—Two hundred pounds per acre of bones, thus prepared, will form a sufficient dose, if applied in the hill. It should be put on at the planting.

I have lately seen several notices of a mineral, alleged to be a native phosphate of lime, and said to be found in Morris county, New Jersey, at or near the Zinc mines. It was reported in the Germantown Telegraph lately, as having been referred to, by some gentleman of the Farmers' Club, of Philadelphia co., as a valuable substitute for bones, and was to be had for \$12 per ton. On application to C. B. Rodgers, of 29 Market street, where almost any thing useful in agriculture can be had as soon as it makes its appearance, I procured some specimens. I have not analyzed them, but from their appearance, have no confidence in their containing any considerable quantity of any phosphate, and am sure that they do not contain anything like enough to bring them up to Prof. Mapes' analysis, as published in Mr. Skinner's periodical some time since.

One large source, from which agriculture might reclaim large quantities of phosphoric acid, has always been overlooked by the manufacturers of Hydro-fenocyanite of potash. The mother waters of this salt, contain large quantities of phosphate of potash. It is very soluble, and combines all that would be necessary to furnish both phosphoric acid and potash to the plant.*

But when we have applied this prepared bonedust, if the soil is destitute, or even scantily supplied with the other mineral requirements, or does not contain sufficient humus, we will not realize our expectations.

Indian corn contains of mineral or inorganic matter about 2-100, and must look to the soil alone for

its supply. This 2-100 when analyzed is found to consist of

Sul: acid,	0.5
Phos: acid,	49.2
Chlorine,	0.3
Lime,	0.1
Magnesia,	17.5
Potash,	23.2
Soda,	3.8
Iron,	0.1

The next question is, how are these substances to be supplied, when deficient? I take it for granted, that as they are found in all specimens of corn, that no man will dispute that corn cannot exist without them. If by any accident we were to produce corn without any or either of them, the effect would be, that it would no longer subserve our purpose, and that the stock fed on such corn, would, like the dog fed on white bread, pine away and die. It would become a useless substance for that purpose, and would soon fall into disuse.

Sulphuric acid and the phosphates we have already. Magnesia is furnished by the Seby. lime, which consists of

Lime,	35.00
Magnesia,	40.54
Clay and iron,	7.60
Sand,	4.00
Water,	12.80

Chlorine and soda are furnished in the shape of common salt, by the sea winds. Iron generally prevails in the soil. Potash has generally been supplied from wood ashes. This substance can be furnished to the soil at much cheaper rates by using the sulphate of potash, which can be had at Rodger's, No. 29 Market street, or at Powers & Weightman's, at low rates. This latter, to a certain extent, will supply the place of plaster.

Recapitulation: For one acre of corn in the hill,

200lb Bones,	} To be applied at the planting.
40 " Sul. acid,	
160 " Water,	
100lb Sul. of potash,	} Applied after corn is above
1 bush. of plaster,	

ground.
Ground to be limed well, and well rotted manure applied to the hill.

G. BLIGHT BROWNE.

Gwynned township, Montgomery county, Pa.

For the Farm Journal.

Corn--Late vs. Early Planting.

MR. EDITOR: I promised some time ago to send you an article on raising Corn, and in accordance with that promise have hastily penned the following, which is at your service:

For the last six years I have been experimenting, for the purpose of ascertaining the best mode of growing corn, that one great error into which our farmers fall, is that of planting too close; from three feet to three feet six inches being the distance usually allowed between the rows each way. My plan is to score out my rows from north to south, leaving a space of full four feet between each. I

* This article may be obtained at H. Worthington's Chemical Works, Leopard street, near Franklin avenue, Kensington.

then drop two grains at one place, with an interval of two feet and a half between each dropping. My object in scoring out north and south, is to give every hill or stalk the benefit of as much sun as possible, and to prevent in a certain degree one row from shading another. Corn, like snakes, is fond of the sun. Every hill is covered with the hoe, (preferring the good old way in that respect to any other) taking good care that no stones or clods rest upon the place where the corn has been planted. This can be accomplished in no way so well as with the hoe.

My time for planting is generally between the 10th and 15th of May, giving the ground a chance to become well warmed before the seed is put into it.—There is far less danger of the corn rotting, when the ground is warm, and the rapidity of its growth more than compensates for the lateness of the season; besides, it is not near so liable to a back set as when it is planted earlier. Many farmers plant their corn the last week in April, when the ground is wet and cold, and as a consequence, (unless under very favorable circumstances) it lays there for weeks without germinating, and very frequently rots. I have known corn to remain in the ground for three weeks before it made its appearance above ground, while it is seldom that corn planted from the 10th to the 15th of May, does not sprout in three or four days. It may be proper to remark here, that I always soak my seed corn in hen manure water, before planting.

I prefer my mode of planting to the drilling system, as the corn is less difficult to keep clean, and I find that I can raise just as much as by the other plan. I have raised from 75 to 80 bushels per acre, without extra manuring, which I consider a fair yield.

Last season, I tried an experiment upon ten acres, by planting one half full 4 feet apart, two grains at a place, 2½ feet apart. The other half was drilled in, 4 feet apart. The drilled portion was much more difficult to keep clean than the other, and the yield was about the same. The corn on the 5 acres planted according to my favorite method, that is full four feet, between the rows, and 2½ feet between the droppings, was much the finest, being larger and fuller in the ear, and easier husked.

I should have mentioned in the beginning of this article, that my ground intended for corn, is always put in the very best condition before planting. Spring plowing is, I think, much to be preferred for corn; unless the land is too rich, which is not often the case. In concluding this plain statement, I will merely remark, that if the same attention were paid to corn growing, that is given to the raising of wheat—if the land was as well manured and worked, we could as easily raise one hundred bushels to the acre, as we now raise fifty.

N. F. ELLMAKER.

Spring Lawn Farm, Lan. co., Pa.

Geology applied to Agriculture—No. 1.

A knowledge of the geological structure and composition of the earth is necessary to the agriculturist who would enjoy the advantages that Nature has treasured up for his use. With the hope of directing the attention of farmers to a subject of such vital importance to them, I shall endeavor to collect together and arrange in a simple and intelligible form, some of the leading facts and principles, abounding in the works of geologists, and such as have a particular bearing on the science of agriculture.

Geology is a comprehensive science, embracing inquiries into the structure, form and properties of the animal, vegetable and mineral kingdoms of nature. To pursue the entire study of this science and comprehend fully all its departments, presupposes a knowledge of many kindred branches, such as mineralogy, chemistry, botany, conchology which could not be expected in the majority of practical agriculturists.

Should I, however, induce some of your readers by investigation and study to apply the knowledge which geology imparts, to the cultivation and improvement of the soil, my purpose will be accomplished.

The crust of the earth has been penetrated by man or is exposed to view in various locations to the aggregate depth of some ten miles*—thus, while the semi-diameter of our globe is 4000 miles, man has only been able to penetrate or examine a four-hundredth part of its depth.

Although this proportion as compared with the whole mass is quite small, the actual thickness is far greater than we could explore with any means at our command, were it not that a benignant Providence had accomplished the work for us.

The upheaval of mountains; the depression of valleys; the excavation of rivers; the disturbing force of earthquakes, volcanoes &c., by their united action have exposed to view as before stated, ten miles or more in depth of the earth's crust; but the same materials are not found everywhere. The denuding, changing, and recomposing action of fire, water, and air, or the atmosphere, have in many places entirely removed what was once the uppersurface and exposed to view the lower or deeper formation, while in other places new deposits have been made which differ entirely from those that were removed as also from the harder formations or substrata which remain.

The great changes that have by these various means been effected on the surface of the earth, give us every description of soil from entirely silicious and barren to that which abounds in fertilizing properties both vegetable and mineral.

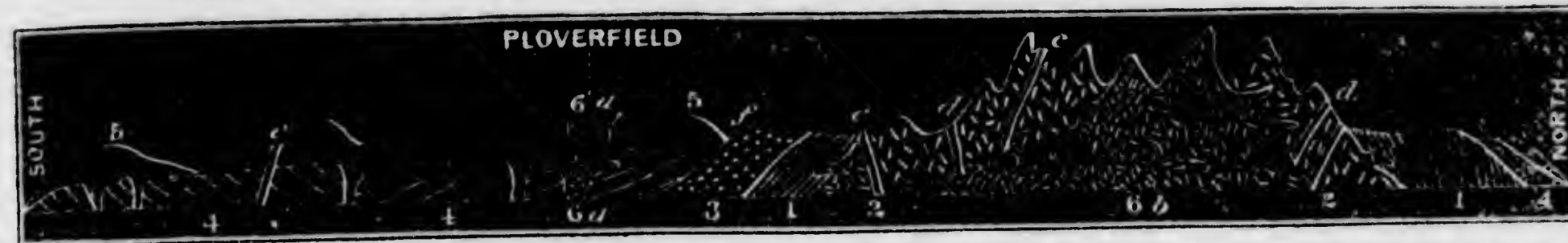
The figure below will illustrate the manner in which the crust of the earth for a considerable

*Many estimates make the depth much greater.

For the Farm Journal.

depth is exposed to view and will exhibit to some extent the cause of the great variety of soils which chequer the surface. It is copied from the last edition of "Lyell's Elements," and illustrates well a considerable variety of formations as they exist in the island of Arran, in Scotland.

GENERAL SECTION OF THE ISLE OF ARRAN FROM NORTH TO SOUTH.



1. Metamorphic or Hypogene Schists, the oldest formations in Arran.

2. Coarse-grained granite, sending veins into the Schists, No. 1.

3. Old Red Sandstone and Conglomerate, containing pebbles exclusively derived from the rocks, No. 1, without any intermixture of granitic fragments.

4. Carboniferous strata & red sandstone, (new red.)

5. Trap, over lying and in dikes passing occasionally into Syenites of the Plutonic class.

6a. Fine-grained granite, associated with the overlying trap No. 5.

6b. Similar fine-grained granite sending veins into the older granite No. 2, and cutting off the trappean dikes, c. d.

By this sketch it may be perceived that the upheaval of a mountain by volcanic or other subterranean action will bring to light the deepest rocks, and thus we have granite, gneiss, hornblende and other primary rocks on the surface, the stratified formations which originally covered them being *denuded* or washed off.

These latter too, where remaining, are thrown out of their horizontal position, and form an angle with the surface, or *dip* from the horizon—where rivers cut their way through these various layers or *strata*, making gorges or valleys, they afford excellent opportunities to study their structure and materials.

To the formation of mountains and valleys, we are indebted for the origin of rivers and lakes or inland seas, and to the same causes at other periods, lakes have been drained and their beds which had been the receptacles of the denuded uplands, formed large and fertile districts.

By a process of this nature it is believed was formed a larger portion of the immense valley of the Mississippi, the most extensive alluvial deposit known to man.

According to Sir Charles Lyell, the delta and alluvial plains of the Mississippi consisting of sedimentary matter, extends over an area of 30,000 square miles, and is known in some parts to be several hundred feet deep.

The agents which have been since the formation of our globe, producing the great changes that now mark the exterior, are still in operation though probably with less activity than at some former periods, and under modified circumstances. Volcanic eruptions may not be, and probably, are not so frequent as in past ages, and the quantity of water flowing on the surface of the earth may not be so great now as formerly, owing perhaps to the increased depth of the present oceans; to a large amount held in suspension by the atmosphere, by absorption, chrysalization, and other causes, but that changes are yet taking place becomes evident on a little reflection and observation.

Every freshet or heavy rain that occurs, carries from our fields and forests immense amounts of their component parts, which becoming intermingled with, are transferred by the force of the currents to new locations, where in the course of time deltas are formed, and new fields drive back the line of the ocean waters. Whether these transforming agents are as active now, as at earlier periods, is a subject of speculation and conjecture which has occasioned much discussion among geologists, but is not material to our present purpose. That those parts of the earth which now form dry land, were at one time, covered with water, becomes evident to such as will carefully examine and observe, the indications which almost every where abound; and that after the retiring of the waters, the rivers were much larger than at the present day is rendered probable, by the sandy beaches; alluvial deposits; higher benches or shelves; the wearing of the rocks, and other indications which may readily be detected by the eye of the Geologist.

The action of water is made evident almost every where over our own State by the round form of the pebbles, by the silicious conglomerates or pudding stones, by the worn surfaces and corners of many rocks; by the regularly stratified forms which exist in numerous locations, and particularly by the fossiliferous impressions, both vegetable and animal, which abound in many formations.

Phila., March, 1852.

A. S. ROBERTS.

For the Farm Journal

South Down Sheep, &c.

TO THE EDITOR OF THE FARM JOURNAL:—I now take up my pen to comply with thy request, and should have done so sooner, had I not felt so mortified with the report of the judges on Sheep. I have not failed to breed a small flock every year for the last fifty years. The first improved stock obtained was an Irish buck and ewe that was imported by Capt. James Jefferies. They were purchased by him when just on the point of sailing from Ireland, with

the intention of killing them on the passage; but afterwards he concluded to bring them home. The buck was purchased by my father and Cheyney Jefferies at \$40. This was previous to 1815. In those days Cheyney was a very noted sheep feeder, though he bred but few. He always purchased the wether lambs that we had to spare at \$2.50 per head and as uniformly fed and sold them at from \$8 to \$12 per head when from two to three years old; and I presume there may be still some relic of this stock in Peale's Museum, Philadelphia. Since then, I have bred some good Leicesters, and mixed bloods, one of which was a ewe that I had bred from for ten years. She was fed by Jonathan Gheen, of Goshen, Chester county, killed in Wilmington, and weighed, when dressed 144 lbs., and was sold at fifty cents per lb. J. G. used to show a hickory peg five inches long which he said was the thickness of fat on her ribs. The Leicesters I found to be the tenderest and most difficult to raise, and having early remarked that the smutty or dark-faced sheep were generally more hardy than white faced ones. When the South Downs were introduced, I was soon induced to give them the preference. Having a large family to provide for, I found their wool much better adapted to the manufacture of satinets, &c., than any other that I had owned; the quality being considered equal to half blood Merino. Feeling desirous of improving some of the best South Downs, as the few in our county could not be bought at less than \$50 per head, and not first-rate at that.

In 1839, I visited the *land of South Downs* and procured some of J. Ellman. The prices that I paid him were \$150 for one buck and \$50 for two ewes, and in order to be able to breed the stock longer without degenerating, I then purchased four ewes of Stephen Grantham (steward to Earl of Liverpool,) for which I paid \$100. Those exhibited by me at the late show were all bred by me. The seven head that I imported, cost over \$400 when landed at Philadelphia, exclusive of the cost of water casks, feed, &c., &c.—And now, after manifesting this much spirit, I hope to be excused for saying with Burns, that I do not like "to see how things are shared," and if friend R. H. Powell would not do me the credit to make it known that I bred his buck that took the first premium, and also two of his best ewes that also took the first premium, I shall claim the privilege of making it known myself. I should think that when the owner receives the profit of a good animal, the breeder is always justly entitled to some credit; and I fancy it would be gratifying to purchasers to know who bred them.

Is it not a fact too obvious to be denied, that our markets are more poorly supplied with good sheep than any other kind of stock. Our beef and pork are good; but what can be said of the mutton of thousands of those "landpike" bleaters that are killed merely for

the skins. If I were to judge for the benefit of the community (as well as for myself,) I should say that there should be greater inducements held out to the breeders of good sheep than for that of any other kind of stock; and I will venture to assert that if all the sheep that Pennsylvania and Ohio send to Philadelphia in one year were *only half blood South Downs*, that the breeders of them would realize thousands of dollars more than they now do. I would not have it thought that my object is to court buyers, for I have none for sale at this time, and I have not sold a Ewe since I imported my present stock, to any person in this State, except J. H. Powell, and my near neighbor John Worth, Jr., who, by the by, as I have mentioned his name, I may add was the breeder of those fine twin wethers, that were fed by B. Hood, and killed last winter in Philadelphia. Our friend A. Clement, in his communication in the 6th No. of the *Farm Journal*, omitted to state when he mentioned the age of the heaviest one (which was 234 lbs.) that it was one year older than the twins that weighed 202 and 192 lbs. This I mention for the credit of the Downs. They were $\frac{1}{2}$ bloods. But I may say J. W. jr., has for some years declined breeding any Sheep except Downs, and I have sold him more ewes than I have sold to all others since 1839, and found him to be the most liberal buyer in our State that I have dealt with, except A. Clement, of Philadelphia; and to him I would recommend those who are not judges of stock themselves, or do not find it convenient to attend to purchasing for themselves.

I shall now add a few lines from an English work of some seven hundred pages, on the different breeds of Sheep—by Wm. Youatt. He says, page 111, "The South Down is adapted to almost any situation in the midland part of England. It has a patience of occasional shortkeep, and an endurance of hard stocking, equal to any other Sheep, an early maturity, scarcely inferior to that of the Leicester's and the flesh finely grained and of a peculiarly good flavor." Page 235, he says—"the number of South Down Sheep sent for the supply of the London market has for many years been regularly increasing; and while the quality of the flesh pleases the customer, they are generally admitted to be the *best proof Sheep* that are brought to Smithfield. The average dead weight of the South Down wethers vary from 8 to 11 stones. But Mr. Grantham exhibited a pen of three sheep at the last show of the Smithfield Club (1835,) one of them weighing 20 stones 3 lbs; the second 20 stones 6 lbs., and the third 21 stones." Page 237, he says, "the practice of letting and selling Rams was more prevalent and more profitable among the breeders of South Down Sheep than of any other kind, except the Leicesters. At the sheep shearing at Woburn, in 1800, a South Down Ram belonging to the Duke of Bedford, was let for one season at 80 Guineas, two others at 40 each, and four more at 28 guineas each.

This practice of late years has been pursued extensively and profitably by Messrs. Ellman, Grantham, Todd and others. Two years previously to this the Emperor of Russia bought two of Mr. Ellman's Rams to try the effect of the cross on the Northern Sheep. The Duke of Bedford at the request of Mr. Ellman, put a price upon them, observing that he did not wish to charge a foreign sovereign, who had done him so much honor, more than any other individual. The price fixed by the Duke was 300 guineas for the two, and he purchased two more for himself at the same rate."

Now I would ask, do those western breeders who produce those "Landpikes," desire those heavy long-wooled breeds, that require rich pastures, and are unable to stand long journeys to market, or the Merinos that are worth but little when brought there; or the hardy South Downs that produce a quality of wool, the most suitable of all for domestic clothing; capable of traveling the greatest distance to market on the least food, and being the most highly valued by mutton eaters when they arrive there?

JOSEPH COPE.

West Chester, Chester county.

P. S.—As an indication of the want of spirit among Sheep breeders, I may add, I met with but one purchaser at Harrisburg, who is an Englishman, by name Jesse Garrard, of Allegheny county, Pa., and to him I sold a yearling Buck of pure Down blood.

For the *Farm Journal*.

Fruit Trees—Planting Seeds—Budding, &c.

MR. EDITOR:—The following views, regarding the culture of fruit trees, some of which are the result of the writer's own observation and experience, and the residue condensed from various sources, may perhaps be of use to some of your readers, they are therefore at your service.

As regards the rearing of seedling apple trees, the seeds after being washed from the pomace should be sown immediately, or if spring sowing be preferred, they should be mixed with sand and exposed to the weather until the arrival of that season, when they should be sown in drills, two feet apart, and the plants thinned to three inches. When two years old they may be taken up and the roots grafted. This may be done in February or March, after which they may be packed in boxes, in clean sand, having a proper degree of moisture to preserve the vitality of the plants, until the season of planting, which is generally from the middle of April till about the same time in May, according as the season may be; when they should be planted in nursery rows, four feet apart, and the grafts seven or eight inches asunder in the rows. They should afterwards be treated somewhat similar to a crop of corn, the ground being kept perfectly clean, till they are of three years growth, when they are ready for market.

When peach, plum or cherry trees are wanted, the stones should be buried in thin layers near the surface of the ground, as soon after maturity as possible, for if they become very much dried they will not germinate, and left to remain thus until spring; when they should be taken up and the peach and plum stones should be cracked, (care being taken not to crack the kernels,) which will ensure their growth, the first season. After which they may be planted in the nursery, the same distance apart as that recommended for the apple grafts, and cultivated in like manner. The greater part of the peach, with some of the plum trees, may be budded the same season; the plums towards the latter part of June, and the peaches at any time during the months of July or August, and in some seasons during the early part of September.

The cherry may be budded the second year, and as they are more difficult to bud successfully than most other kinds, they should be worked just as the terminal buds of the stocks commence forming.—This varies according to the season.

It is better to work each variety of fruit upon stocks of the same variety, yet the plum, nectarine, and apricot work very well upon peach stocks, though such trees are shorter-lived than when upon their own stocks. When apricots or nectarines are intended to be planted in low or moist ground, they should be worked upon plums; but if on high or sandy ground, the peach stock is to be preferred. When plums, apricots, or nectarines, are worked upon peach stocks, they may be budded at the usual season of budding the peach.

And for the benefit of those of your subscribers who may not have the book at hand, I will insert a short extract from Downing's "Fruit and Fruit Trees," on the proper time and method of grafting the grape vine. The author says: "Cut your scions during winter, keeping them partially buried in a cool, damp cellar till wanted. As soon as the leaves of the old vine or stock are fully expanded, and all danger of bleeding is past, say about the tenth of June, cut it off smoothly below the surface of the ground, and split the stock and insert one or two scions in the usual manner, binding the cleft well together, if it does not close firmly. Draw the earth carefully around it, leaving two or three buds of the scion above the surface. If the root of the stock be a strong native grape, the graft will frequently grow ten or fifteen feet during the first season, and yield a fair crop of fruit the second. The vine should never be grafted above ground till the leaves are nearly expanded."

ROBT. FOSTER.

Lewisburg, York county, March, 1852.

According to Pallas, in the Crimea, the tame duck is reared with much difficulty.

Mr. Gowen's Address.

At the request of a large number of our readers, we give in the present number the first part of the Address delivered by James Gowen, Esq., before the Lancaster County Agricultural Society. It will be seen that several of the positions taken by Mr. G., are in direct variance with the received opinions of the day, and will doubtless meet with some opposition. The stand he takes in regard to Lime and green cropping, is certainly a bold one, and will open the way for discussion. So soon as the whole address appears, we shall offer our own views upon the subject, if not anticipated by some of our correspondents, one of whom (Mr. Stavely) has already given us an article on the subject.

Address delivered before the Lancaster County Agricultural Society,

AT ITS ANNUAL MEETING ON THE 13TH OF JAN., 1852,

By JAMES GOWEN, Esq.

CORRESPONDENCE.

LANCASTER, JANUARY 13, 1852.

DEAR SIR—By unanimous vote of the Lancaster County Agricultural Society, we have been instructed to request a copy for publication of your able, practical and useful Address, this day delivered. In obeying the instructions of the Society, we can with perfect truth assure you that the request which we now make is not a mere compliment to you, but that your compliance will be the means of spreading before our farming community a mass of information which we believe will be at once pleasing and profitable to them.

Very respectfully, your friends,
ABRAHAM KAUFFMAN,
JAMES EVANS,
THO. H. BURROWS.

JAMES GOWEN, Esq.

JANUARY 14th, 1852.

GENTLEMEN—The motive that urged you to ask for the publication of the Address, was the same that induced me to deliver it, and I therefore most cheerfully comply with your request. Permit me to add, that it will afford me the liveliest gratification should your laudable intention be properly appreciated, and your anticipations of usefulness be fully realized, through its reception by "our farming community."

With great respect,

I am, gentlemen,

Your obedient servant,

JAMES GOWEN.

Abraham Kauffman, James Evans, Tho. H. Burrows, Esq'srs.

ADDRESS.

Mr. President and Gentlemen of the Lancaster County Agricultural Society:

Had I been called upon to address an assemblage of citizens of Lancaster upon any subject other than one falling within the purview of your Society, I should, from conscious inability, have shrunk from the performance of a task that could not fail, if attempted, to place me in a position of great embarrassment—an embarrassment not to be overcome by any resolution I could summon to sustain me, under the

pervading sense of my insufficiency to even measurably acquit myself before so enlightened an audience as Lancaster can, on all occasions, present to the apprehension of one acquainted as I am with the character of its citizens. Nay, even on the subject of Agriculture, I cannot but distrust my competency to fulfil the expectations naturally suggested by the call you did me the honor to make upon me, inferring, as I may, the estimate you put upon my services from the standard of your own reputed excellence, in the theory and practice of Agriculture.

Yet, notwithstanding these apprehensions, I shall, with due deference and to the best of my abilities, attempt to improve this occasion, the first anniversary of your Society, by adverting to the expediency of Agricultural Societies; the characteristics proper for membership in view of usefulness; the apathetic condition of farmers, and the means best calculated to enlist their sympathies in behalf of improvement—subjoining some brief remarks on the practice of farming.

The Advantages of Agricultural Societies have, from experience and observation, been impressed upon my mind for a series of years. Wheresoever I sojourned in Pennsylvania, and with whomsoever I conversed capable of properly appreciating the expediency of establishing them throughout the State, my influence was directed to that object. These Societies I considered not only as necessary to the improvement of the husbandry of the localities where they might be formed, but to further the grand object of a State Agricultural Society, embracing and commanding the combined talent and experience of the County Associations, and capable of diffusing a spirit of improvement in culture and husbandry throughout the whole length and breadth of the Commonwealth. The effect of such an organization I believed would be, primarily, to increase the products of the soil, and to elevate the character of the husbandman; and, secondly, to be a means of improving the financial concerns of the State, by enabling the tax-payers, the farmers, to bear their burdens with greater ease and convenience, from increase of profits, growing out of a condition of improved practice in farming—which improvement, in my mind, could only be effected by a combined effort, through the medium of a State Society. The impulse thus to be given, would tend to bring under profitable culture the waste or neglected lands, to the advantage of their owners as well as the public—enhance their value to a highfold state—capacitate them to proportionate taxation, and, by this means, diminish the rate to the payers on old improved lands, by reason of the addition of the newly-improved lands being subjected to taxation on an increased value. This increase, and increasing operation of the material to be taxed, while it lessens the rate, by dividing individual burden, seemed to me the safest and surest basis of revenue to be relied upon by the Commonwealth for the extinguishment of its debt, compatible with progressive prosperity to all industrial classes.

In contemplating the benefits to accrue from a combined effort in favor of Agriculture, and the means by which it could be effected, the wealth and influence of Lancaster county, so proverbial at all times, could not fail to lead me to regard its moving in the cause as essential to success. Hitherto, "The Philadelphia Agricultural Society for Promoting Agriculture," had labored singly and alone in the work, and having its shoulder at the agricultural wheel, could, with a good grace, call upon others for help to move it from the rut of apathy in which it had so long been imbedded. That call was

graciously responded to by almost every county in the State, and by none more cordially than Lancaster. Her broad shoulders were put with a will to the machine, which was soon seen to move and roll onward to Harrisburg, the centre of the State, where last January it was dedicated to the work of Agricultural progress. Your share, gentlemen, in this achievement, was in every respect worthy of your noble county; and your Society, which I now have the honor to address, exhibits a striking evidence of the determination of Lancaster to persevere in the great undertaking, and furnishes a guarantee that so far as it depends upon her, the work of progress will be carried on with zeal and fidelity. I repeat, that I ever thought that no State Agricultural Society could be effected until Lancaster moved in the matter; and it is equally clear to my convictions, that so far as Eastern Pennsylvania is concerned, the State Society must languish, unless Lancaster, through its Agricultural Society, lends to it the commanding influence of its name and energies. This must be conceded, I think, by all who are conversant with her position and character as a farming district. The relation she bears to York, Cumberland, Dauphin and Berks, through associations of maternity and filial regard, cannot but render her action of the utmost importance. Her supineness, hitherto, was held by many in other sections as excuse for holding back, while she stood still. This was cause of regret to several of her own cherished citizens, among them the venerated REDMOND CONYNGHAM, who corresponded with me, and who has been translated from an earthly* to a heavenly Paradise, to receive the reward of his many virtues. If he were living, how it would rejoice him to witness the scene in which we are now permitted to participate. He, with many of his venerable cotemporaries, has been gathered to the great Harvest Home where we all must be garnered; but Lancaster still, as ever, abounds with laborers capable of carrying on the good work. Any county of the State may be challenged to present a greater array of gifted minds than Lancaster can point to among her citizens—men capable of filling every station in which talent, patriotism, and sterling worth are deemed prerequisites. Surely, then, it will not be asking too much of them, to lend the influence of their names to the cause in which we are embarked. Most of them have been brought up on farms, or have in youth mingled in the scenes of rural life, and it cannot be but their youthful recollections, as well as a just appreciation of the labors of the husbandman, will incline them to join with you in redeeming the time, and in placing the agriculture of your county in fact, where it ever was supposed to be, in the first rank. And here permit me to say, that so far as regards the prosperity of your Society, and the advancement of the interests it was instituted to promote, it should be your aim to invoke the aid and countenance of such men. I allude to gentlemen of the learned professions, and other intelligent and influential citizens, not specially engaged in farming.

The great body of farmers, those whose sphere of action is circumscribed within the limits of the fields they cultivate, however naturally strong in good sense and understanding, are, from their habits of quiet and seclusion, averse to placing themselves in stations, even in an Agricultural Society, which might demand the exhibition of capabilities commensurate with the duties of the places their associates would gladly see them fill. Hence, if the founding and conducting a society were to depend upon the

*His residence was in Paradise, Lancaster county.

farmers themselves, few Agricultural Societies would be formed or carried on with the zeal, tact and energy necessary to their progress and usefulness; and this must be apparent to every observer who has had the opportunity of acquainting himself with the retiring habits of the tillers of the soil. Therefore, it is not only expedient, but indispensable to the advancement of the cause, that Agricultural Societies should rank among their members men respectable and distinguished of whatever profession. It needs no argument to demonstrate the advantages to be derived from the co-operation of such men.

To illustrate, however, the benefits that have been conferred upon Agriculture by the labors of professional gentlemen, I need but refer to the Philadelphia Society, and its successful career through a period of nearly seventy years. Its presiding officers, for the greater part of that time, were the distinguished and talented Judge Peters and Nicholas Biddle; and I may safely say, that it was owing to their labors and influences, with other respectable citizens not farmers, that gave to that Agricultural Society such celebrity. To this day it exhibits on its list of members individuals of the medical and legal professions, and of the commercial community, who prove themselves zealous and useful members. It should, however, be remarked, that the great bulk of the Society at all times was made up of those owning and living upon farms.

The aid rendered by literary and professional men in carrying out the design of the Society, was not the only benefit growing out of the association of characters so apparently opposite in their habits and manners as the rustic and the polished gentleman, by no means. A community of feeling as well as of interest sprung up between them, through the medium of the intercourse established at the meetings of the Society, held for a special purpose—"the promoting of agriculture." The reciprocal advantages to both classes were soon strikingly manifest. The hand that held the plough no longer despised the hand that held the pen, since it began to perceive that it was not so idle nor so useless a hand as had been supposed. The cultivator of the soil and the chopper of wood began to think the cultivator of speech and chopper of logic not so contemptible as he had imagined, since he had so frequently heard him explain, with force and fidelity, principles which he himself understood and maintained, but could not commend or establish, from having thought the faculty of speech not worth cultivating. He was sorry to think, that while he kept every implement on the farm bright and in good condition, using them freely when occasion required, he had neglected, one implement, the tongue, it having been considered of little service upon the farm, and therefore suffered to rust for want of use. On the other hand, the man of tact and talent discovered, that though his taciturn fellow member was not fluent in speech, yet he said much in a few words, and frequently with grace deferred to him, as when his unpracticed adversary maintained an opposite opinion, founded in experience and good judgment. Moreover, the man of polish and learning could not but perceive, perhaps that if the burnishing bestowed on him had been given to his sturdy though unassuming opponent, he would have developed a brighter and deeper lustre than that which he himself reflected; and that though the farmer might be deficient in head, according to the "cute, go-ahead principle," yet that deficiency was atoned for in the largeness and goodness of the heart that God had implanted in his bosom, and which had never been permitted to rust, but was ever ac-

tive in the works of true benevolence and genuine hospitality, and in the exercise of the best sympathies of our nature, intuitively kept in play by its own generous disposition.

The seemingly dissimilar points of character of these respective classes gradually became modified thro' contact and association, and inspired confidence in each other, while every joint effort to promote the cause for which they had associated, imbued all with a better understanding of the principles of rural economy—making of one, amateur agriculturists, of the other, enlightened practical farmers—each class contributing, in their respective spheres, to the advancement of the theory and practice of agriculture. This conventional feeling led to individual intimacy, highly beneficial to their improvement. The professional or mercantile gentleman would make visits to the dwellings of his fellow-members, the farmers, where he was received with kindness and becoming hospitality. Here the love of rural pursuits, imbibed at the meetings of the Society, was heightened by all he saw around him. The unpretending and commodious farm-house—the noble barn—the well-kept garden—the ample orchard—the shady trees—the beautiful meadow—the finely cultivated fields—the rich pastures, with the sheep and cattle, could not but call forth the oft-repeated expression, that “God made the country and man the city,” and lead him to contrast the peaceful scene before him with the bustle, din and dust of the thronged mart, from which he had escaped to breathe, but for a short space, a purer atmosphere; and to determine, whenever fitting opportunity occurred, to quit the city, with all its conventional rules and artificial modes, to spend the remainder of his days in the enjoyment of the quiet and simple habits of country life. And thus have many wealthy and influential citizens been merged in the great family of agriculturists, adding weight, character and influence to the profession. The taste, enterprise and public spirit of these gentlemen, led to making large outlays in improving land, experimenting in culture, erecting fine buildings, ornamenting grounds, importing choice breeds of cattle, sheep and swine, and patronising agricultural journals. These investments inured more to the benefit of the country than to the individuals by whom they were made, and were mainly undertaken in the spirit of a lofty and generous patriotism. The man most entitled to praise, in this connection, in Pennsylvania, is John Hare Powell. Had his efforts been properly appreciated, and his example followed in the selection and breeding of cattle, it would have added to the value of the live stock, beef and dairy products of the State some millions of dollars annually.

The illustration, so feebly sketched as it has been, in reference to the benefits accruing to the cause, through an union of individuals of different callings and professions, will serve, however, I trust, to show the propriety of some effort on the part of those who think the promoting of agriculture commendable, and whose tastes, talents and patriotism fit them for the work.

In view of the great necessity for such combination, it is only necessary to glance at the condition of the working farmer, and the impediments that naturally prevent him from devising or pushing forward any plan promotive of increase of profits with less toil, or the elevation of his obscure or humble vocation; for be it remembered, however poetry may gild or invest his calling with charms, it is, in plain and truthful prose, one of depressing drudgery—excluding the mere farmer, from habit, as well as from the pre-

judice of fashionable society, from taking rank with members of many other professions in the scale of gentility. This position I would fain ameliorate, if not avert—and to that end I would invoke the aid of every able and generous mind around me.

The isolated position of farmers generally deny to them the opportunities and advantages of social intercourse and means of improving enjoyed by almost every other industrial class. The mechanic, with entire ease and convenience, may and does associate daily in the same shop, or weekly or monthly in the society room, with his fellow-artisans, in any village, town, or city. So of the manufacturer. The lawyer and physician, from the nature of their functions, are ever within or under each other's eye and that of the public, while struggling for distinction, which serves to stimulate to renewed effort, should they pause for a moment in their emulous career. The country trader is kept ever lively waiting upon his customers, while his skill is tasked in the selection of supplies suited to their wants, and to yield a fair profit. The merchant is relieved from the tedium of the counting house by appearing on 'change, among the enterprising class that daily crowd that animated scene of commerce and speculation. All have means and incentives peculiar to their pursuits, which instruct, inspire, and gratify! Not so with the unpretending habitant of the farm, whose constant and unremitting labors confine him wholly to the barn, the stable, and the field. He has but few opportunities of associating even with those of his own calling, much less with others better versed than himself in the ways of the busy world. Each day so spent lessens the desire to look abroad, or change in any respect his practice or routine, and thus he settles down in a state of apathy, apparently insensible to the necessity of improvement, till Time, with its witherings, numbers him with the clods—with which, while living, he seemed little more than a fit associate.

In drawing this sketch, let me not be understood as designing to disparage the calling of the farmer, or to impute to the simple and inoffensive swain aught that would cast a shadow on his brow, or a blemish on the spotless integrity of his unsophisticated nature: far be it from me. A worthier motive moves me to call your attention to the condition of the thousands that uncomplainingly toil on, day after day, bowed in body and spirit by incessant, and in general unremunerating labor—shifting, when no longer able to bear it, the same undiminished burden on the shoulders of their sons, which had been cast by their fathers upon themselves. It is to lighten this load, that I thus appeal to the generous sympathies of their more enlightened brethren, the enterprising and intelligent farmers of Pennsylvania, of whom I am certain she holds within her rich and beautiful domain as many noble specimens as any State in the Union can boast. To them I would especially appeal to advance the character of their profession, and promote the influence of the landed interest, and to place the husbandman in the position he should occupy in the scale of intelligence, and in the consideration due to him morally, physically and politically.

It may be asked, how can this be done? I answer, by educating liberally the rising generation; by encouraging and patronizing the Agricultural Press, thereby sowing broadcast, as it were, the seed of information, so that every farmer may be provided with a crop, if not for reaping, at least for reading; and by holding Agricultural Exhibitions, in which all should participate, either as contributors or spectators. But these plans cannot be carried out without

a combined effort through County Associations and a State Society. The State Society is formed, but societies such as yours should be maintained by every county. When every county shall have its Agricultural Society represented in the State Society, it will then be easy to carry out the necessary plans for the improvement of the whole.

The most feasible and practical plan to arrest the attention of the farmers of the present day, and call them forth from their solitude to mingle in the interesting and stirring scenes of competition and display is the Agricultural Exhibition and Cattle Show. It was held by the venerated Judge Peters, already alluded to, that one good Agricultural Exhibition was of more avail in stirring up the dormant energies of the careless and indifferent farmer, than all the essays ever written. In this, every intelligent man, having experience, in such matters, must concur. How can those be reached who will not read—who, from habit, would deem it a harder job to turn over a few pages than as many furrows? When, therefore, precept fails to be available, we must rely upon example. The Agricultural Fair and Cattle Show are as cabalistic words, operating magically upon the curiosity of the farmer—impelling him and his family to go, where everybody is expected to go, to see such sights of horses, cattle, sheep and swine, agricultural products and implements. What book or essay could be half so interesting and instructive to such a man, as the broad and varied page presented to him in the imposing tableau of a well arranged exhibition? Here are living pictures of animals that breathe and move—aye, speak in tones and language more eloquently and forcibly to his comprehension and appreciation, than anything you or I could say or write. These noble horses, of various degrees of excellence in action, blood, bone and sinew, rivet his attention, and bring him to think and compare them with the dull unsightly beasts upon his farm, that consume so large a portion of his corn, oats and hay, without an equivalent, and his conclusion will be, that the next colt he raises shall be an animal worth looking at, worth his feed, and worth money when he wants to part with him. Then there are the bulls, cows, heifers and calves, of various breeds, under his eye and within his reach—Durhams, Ayreshires, Devons and Alderneys—each challenging comparison in size, beauty, handling, feeding and milking. He examines, compares, and ventures an opinion upon respective ones, and anxiously awaits the award of the judges, to learn whether he is anything of a judge himself through their decision, should it or should it not tally with his opinion as affecting his favorites in the matter of premiums. He turns to the sheep, swine, poultry and implements, which serve to keep up the interest he felt on entering the show grounds. He is astonished, not bewildered, because he knows the use and meaning of every thing. He is only surprised that animals and things so common and familiar to him, should have been brought to such perfection—should have undergone such extraordinary change, and he should not have known it sooner.

What effect may it be supposed this lesson will exert upon his future practice? None other than a beneficial one. The emulation implanted in the breast of every right-minded man will inspire him to make an effort to produce things equal to what he has seen, so far as stock is concerned, and to hope that at some not distant period he will return to such a scene, not only as a mere spectator, but as a contributor and competitor. Once this resolve is made, a new era dawns upon the condition of his farm—for who would have fine cattle, sheep and swine, but would naturally de-

sire to have fine pastures, well-tilled fields, good fences, comfortable stables, large manure heaps, and heavy crops, all of which being compatible and indispensable to the position he designs in future to hold among his spirited brother farmers; and hence he will become a useful man in his neighborhood, stirring up by his example the apathetic and careless, who, witnessing the results consequent upon his skill and energy, cannot fail of being stimulated to adopt a similar practice. Here, then, is one of the many advantages resulting from Agricultural Exhibitions, one which my own experience and observation have fully confirmed. What has rendered the agriculture of New York of late years so prominently conspicuous among her sister States, but her well established Agricultural Societies—which, through a spirited effort made at first by a few notable and patriotic individuals, persevered in under many discouraging circumstances, proved so successful, that there is not a county I believe in the Empire State that is not impressed with the seal and attestation of the beneficial effects of Agricultural Associations—while the whole United States views the Annual Exhibition of the New York State Agricultural Society more in the light of a national affair, in which all feel a just pride, than a mere State institution. Ohio, our western neighbor, is following with rapid strides the example New York has set. So with Maryland, who has entered the field, determined to wreath her brows with a leaf from the palm of distinction.

With these animating examples before her, it would have ill become Pennsylvania, with all her acknowledged capabilities to compete with the greatest and the best, to fold her giant limbs and look on unmoved, an unconcerned spectator of this race of progress, and not make one invigorating bound to keep them in condition, or by way of showing that neither one or many States could make a patriotic demonstration, without Pennsylvania participating in it. State pride, and every ennobling impulse that nature in her finest mood puts in play, could not but urge her to contend, now, as ever, for precedence in whatever can exalt, dignify, or adorn! Impelled by these aspirations, she stood nobly forth at her capital the beginning of the last year, and entered the field of competition, under the title of “The Pennsylvania State Agricultural Society,” and in the name of “Virtue, Liberty and Independence.” Her Agricultural Exhibition last fall showed she was perfectly in earnest; and if it did not prove her in advance of her sister States, it demonstrated she was not far behind those who had gone the furthest. The cause which has been cherished for ages by the most enlightened nations is worthy of Pennsylvania; and it should be our ardent desire, that for the character of the State, the honor and prosperity of her citizens, our good old Commonwealth should gain for herself an imperishable name, in raising to the highest rank, through a generous and liberal policy, the peaceful and interesting pursuits of agriculture—that she may be the victor in the race now being run, and be crowned with a chaplet, more to be prized, than ever decked the brow of the most successful warrior of the tented field!

From the rank which it was my pride to aspire to, and to which I may in some degree claim to have attained among those who have labored to promote agriculture, it may be expected that I should speak of the principles of scientific culture in connection with chemistry; but were I competent to the task, it would be of doubtful expediency to investigate or refine upon principles of science on an occasion like the present. But a more pertinent reason may be given, a

reason quite satisfactory to myself that I should not attempt it, and that is, I am so deficient in the science that I should only render myself ridiculous, did I undertake to elucidate the elements and agents which nature so mystically employs in the process of vegetation. They alone are competent to unfold its mysteries who have devoted their time and talents in acquiring a knowledge of its principles and laws through scientific research and philosophical experiment—the graduates of the laboratory. For my poor part, I must be content to worship at a distance; not daring to enter the temple, into whose portals the initiated only should claim admission.—But there are matters and things within our reach and comprehension which, without being presumptuous, we may claim the right to touch, handle, and understand; I mean the simple practice of every day husbandry.

Before entering upon that, permit me a word of warning, not irrelevant to our object. All experience has shown that no discovery in science or philosophy has been made, but was put in jeopardy so soon as it had claimed some degree of popularity, by Pretenders and Charlatans. I would then, for the sake of the cause for which you have associated, and in which I have spent time, money—I will not say talents, but such abilities as I could command from a too scanty stock, earnestly admonish you not to countenance the speculative quacks, who, for mere lucre and contemptible notoriety, will spring up, relying upon the easy credulity of others and their own brazen effrontery, and profess to teach and lecture upon scientific agriculture. We have seen of late sad specimens of professors, besides those who lately figured in Clairvoyance, Prevision, Retrovision, Mesmerism, Phreno-Magnetism, Psychology, and other mysterious ologies and isms, which, like live coals blown to cinders, have been puffed to death by these philosophic bellows-blowers. And now, since Scientific Agriculture is getting into vogue, it would not surprise if some of these "wise men" would turn their mother-wit to profitable account by turning their hand to teaching Vegetable Physiology and Agricultural Chemistry. If they should, and meet with the least encouragement, it will retard the improvement you and other true and disinterested men have essayed to advance. Why? Because it cannot be disguised that among the generality of farmers, there is a distrust of the means resorted to through the press, appealing to their reason and good sense in well authenticated facts and results, bearing upon their practice, which, from the prejudice against "Book Farming," they are prone to not heed or credit. If these Pretenders get loose among them, they will sicken and surfeit them to loathing, by technical jargon and arrant quackery. Besides, which is most to be feared, the truly well educated professor, whose services would be of the utmost benefit to the cause, will, through self-respect, refuse to officiate as "Professor of Rural Economy," when he perceives the title has been assumed by others through impudent pretension, and the station defiled by the sheerest humbuggery. This is not all: the legislature to whom we look for aid in furtherance of Agricultural Education, might, when appealed to, be diverted from the importance due to its consideration, should some clever member, not having the fear of God before his eyes, but the manner in which these self-styled professors perform their functions, turn the whole subject of Agricultural Education into burlesque and ridicule. For these and many other cogent reasons, it behooves the friends of Agriculture to protect it from every taint and speck of quackery.

That Agriculture is largely indebted to the science of Chemistry, is but a feeble acknowledgment of the benefits already conferred upon it. And to say that much more is yet in reserve for it from the same beneficent and abundant source, is less presumptive than authoritative; for, from what has been done, it is plain that more can and will be more ably done. Results suggest results, and ever will, till mind and matter shall be wholly resolved, and time be no more!

Since the developments made by Liebig, in the application of Organic Chemistry to Agriculture and Physiology, mighty efforts, no doubt, are being made by chemists in Europe and in this country upon these and kindred subjects, which must give to Agriculture results at once practical and miraculous. I have read or heard it somewhere stated, that ere long it will not surprise to see as much manure compressed within the compass of a pocket handkerchief as would be sufficient to dress an acre of ordinary land for growing wheat. Notwithstanding the confidence I have in science, I must say, that when this shall happen, there will be a decline in the price of farm horses and working oxen; and without meaning to be irreverent, would pray to be helped in my unbelief. But our doubts are not a proof that the thing is impossible, for many of us are old enough to have witnessed achievements in science now so perfectly familiar to our apprehension as not to challenge our special wonder, which, before having been practically demonstrated, appeared as visionary, as that a handkerchief full of fertilizing ingredients would at no very distant day be found sufficient to manure an acre of ground.

When Fulton, who was born in your county, first designed to supplant wind, sails and cordage, by navigating with steam, what faith would it have required then to have believed that steam should in so brief a space, less than the length of our own fleeting day, drive wingless ships across the Atlantic in ten or eleven days; or that in a shorter period, the grass would be growing on your great turnpike, where, but as lately, innumerable Conestoga wagons lumbered along with the products of your industry to the Philadelphia market: and heavy four-horse stages carried you over that road to the city in the prodigious short space of one day, allowing time for the best breakfasts and dinners at the taverns ever passengers were comforted with. When that is compared with the rapidity every thing whisked over the same distance now on the railroad, by Fulton's agent, Steam, not allowing time to beget an appetite for a morsel, nor for a glance at the beautiful farms thro' which we are steamed with giddy velocity, it is enough to bring the tears into eyes like mine, when reminiscences of the Lancaster Turnpike crowd upon the memory, reminding us of the mutability of human affairs! I repeat, what degree of faith would it have required to have believed that those things would come to pass, when your neighbor Robert Fulton, was meditating their accomplishment? Why, it would have needed the faith that could remove mountains to have assented to the bare possibility that such things should ever be. And what of the Magnetic Telegraph, and numerous other things that cause old folks to think that they no longer inhabit the same world in which they were born?

(CONCLUSION IN OUR NEXT NUMBER.)

CHICKENS are now sent from northern Ohio alive, to the New York market, where they sell for 30 to 50 cents a piece. We have known them, says *The Plow*, to be a drug in the Ohio market at 50 cents a dozen.

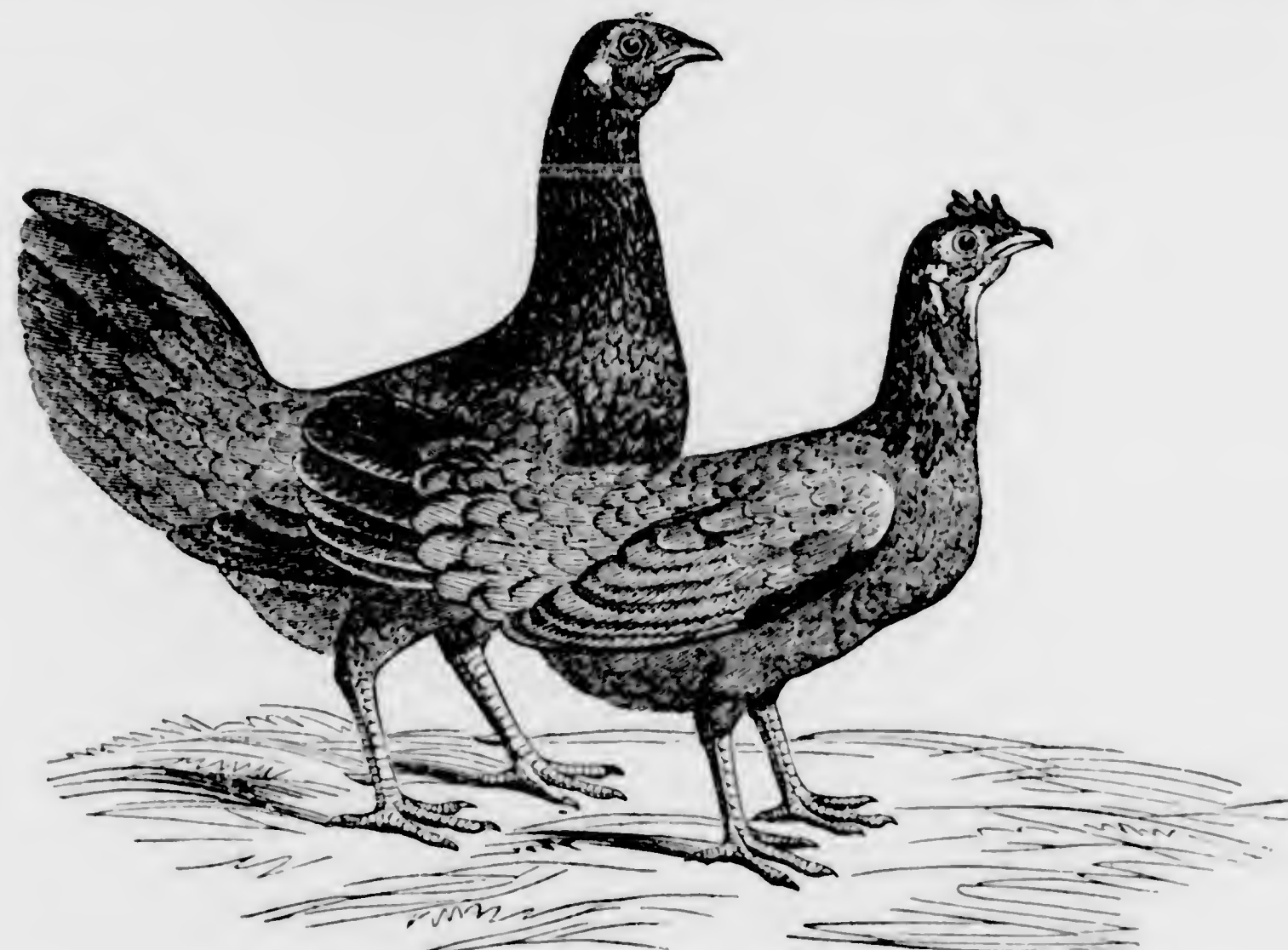
The Poultry Yard.

HEN-COCK GAME FOWL.

The following letter from Mr. D. Taggart to Dr. Kerr, in relation to the peculiar variety of Game Fowls in his possession will be read with interest:

Accidental qualities may be transmitted from parent to child, as the following will show.

A friend of mine, the late Robert Grant, owned a fine large breed of Game Fowls—shawl neck, or Irish grays; the Cocks weighing seven pounds. One of his roosters, when a mere chicken, stepped into the fire, and roasted off his toe-nails. He hardly ever got an offspring that did not, more or less, show his parentage, by defective toes. I procured a couple of his progeny, and have the Hen yet. Her Chickens and grand-chickens have the same signs. Is it not wonderful that a mere accident should thus mark at least four generations?



MR. D. TAGGART'S HEN-COCK GAME FOWLS.

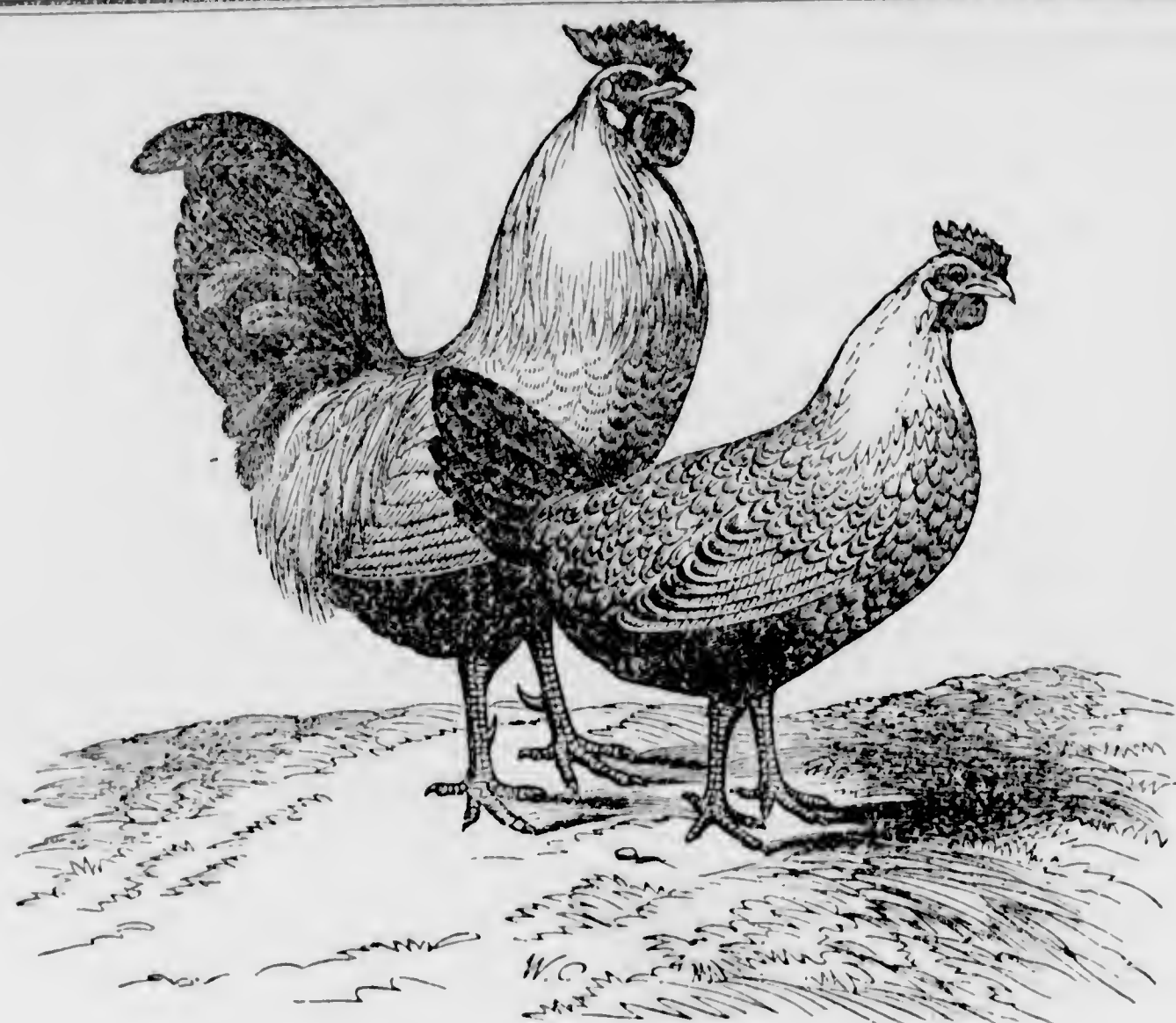
BOLTON GRAY, OR CREOLE FOWL.

The Bolton Gray or Creole Fowl is sometimes called Dutch Every-day-layers, Pencilled Dutch Fowl, Chittaprats, &c. They were originally imported from Holland to Bolton, a town in Lancashire, England, whence they are named. The ground color is pure white, minutely shot or touched with black, except on the neck, giving rise to the name Pencilled Fowl, and from the frequency of their being brought over to London, by Rotterdam steamers, they are called "Dutch Pencilled Fowl," or "Dutch Every-day-layers." A good Cock of this breed may weigh from four to four and a half pounds, and a hen from three to three and half pounds. I found them good layers, but have thought the Eggs to be watery and innutritious. I wrote to a friend who knows the Fowl well, having kept the variety for several years, and his reply is,—“Of the richness of Creole Eggs, compared with those of less prolific breeds, I am scarcely able to speak. Though I have owned Creoles for a dozen years, I have never made any careful comparison. But, from analogy, I would infer

Two years ago, I purchased, from a gentleman in Bloomsburg, a very odd-looking Chicken, a Pullet four or five months old. Though very small, weighing now not more than two pounds, (see Portrait,) she has the appearance and characteristics of Dr. Bennett's Wild Indian Game Hen, except the vast difference in size. I was struck with the resemblance. She is firm-fleshed, short-feathered and almost combless; and has the most peculiar gait I ever saw.—Her pertinacity in sitting is most extraordinary. I will try to send you her portrait. Her mother, no larger than herself, was imported from Calcutta.—And, though my Pullet is the result of crossing with an ordinary Game Cock, the breed is so strong that she resembles her mother in all respects, and her sire in nothing. You may form some estimate of her fighting blood, when I tell you, that Cocks out of her, by a Booby, (the meanest of all gallinaceous athletes) or other Dunghill Fowl, are a full match for our best Game Chickens.—Dixon & Kerr's O. & D. Poultry.

that an Egg would prove rich in proportion as it was small, compared with the Hen that produced it, *ceteris paribus*. A Cow, nearly dry, generally gives much richer milk than one that yields abundantly.

“The superiority of a Creole Hen does not consist as much in rapid as in continued laying: She may not produce as many Eggs in a month, as some other kinds, but she will lay more months in the year than probably any other variety. I have had Creoles seven or eight years old, that never became broody, and which have laid, in that time, at least six hundred Eggs in this fashion:—First year, one hundred and eighty or two hundred. Second, one hundred and fifty. Third, one hundred to one hundred and twenty. Fourth, seventy or eighty. Fifth, forty or fifty.—Sixth, eighteen or twenty. Seventh, almost total barrenness. This statement shows the extreme folly of keeping Hens after the third, or even the second year. For, besides the great falling off in Eggs, they are apt to prove infertile, when laid by superannuated Hens.”—Dixon & Kerr's Ornamental and Domestic Poultry.



CREOLES, OR BOLTON GRAYS.

Budding Roses.

The following, from that excellent work, "Buist's Rose Manual," will doubtless prove interesting to our lady readers;

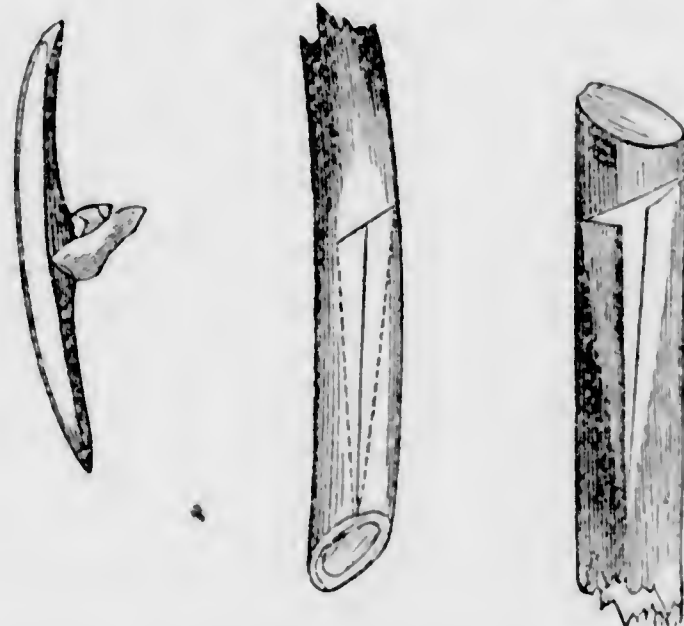
Budding, within these few years past, has greatly increased in nursery practice, and multiplied the plants to a wonderful extent; it is the favorite mode with the French growers, and on the stock which they use, plants will grow for half a century. I have seen them in the neighborhood of Paris, like large trees, with stems six inches in diameter, and heads thirty feet in circumference. To cultivate them in such perfection they use every kind of enriching matter, which they freely apply every year. Almost every rose can be propagated by budding; indeed, I may say, that every variety can be multiplied in that way, and form handsome plants, when on strong stocks, in one year. For some of the kinds it is the only resort, as they are difficult to manage by either layering or grafting. Some of the Perpetual Roses rarely form roots when laid, but bud freely. Budding may be easily described so as to be understood by the initiated, but as it is to the unpractised hand that we pretend to give our feeble instructions, we will endeavor to omit no detail, even at the risk of being too minute. The operation may be performed with any sharp thin-bladed knife, though one called a "budding-knife," with a thin ivory handle, is best for the purpose. It should be inserted about half an inch above the bud, and passing about one-third of the way through the wood of the shoot, come out again about the same distance below it, the cut being as clean as possible. The portion of the bark in the centre of which the bud is situated, is called the shield and when removed it contains a portion of the wood, which is to be carefully removed with the point of the knife, as shown in figure 1;* if the wood is dry,

and does not separate readily, it is a sign the bud is too old, and it should be rejected. When the wood is too old or too young, the shield may be taken off only about one-quarter of the way through the shoot, and inserted into the stock without removing the portion of the wood it contains; this method, particularly with very young shoots, is very successful. If it is necessary to transport the buds some distance, this may be safely done by cutting a portion of the shoot, and after stripping off the foliage, wrap it up in damp moss, a few large leaves, or wet paper, and it may then be kept for three or four days. In applying the bud to the stock, an incision is to be made lengthways through the bark (but not so as to injure the wood,) about an inch in length, and this is to be diagonally crossed at the top by another incision, as shown in fig. 2. The thin ivory handle, or back of the knife, should then be used to raise the bark, as shown in fig. 3, and the shield inserted within, gently pressing

Fig. 1.

Fig. 2.

Fig. 3.



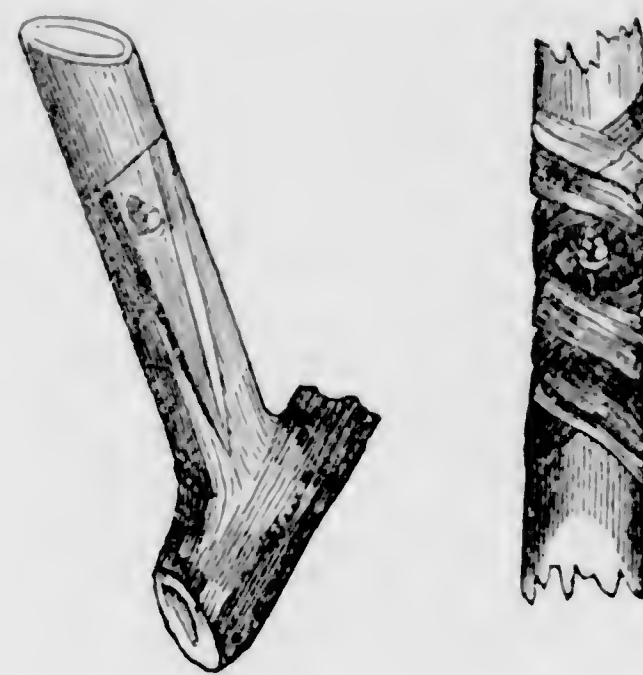
it to the bottom of the perpendicular incision; when it is properly placed, the portion of it above the diagonal cross should be cut off as in fig. 4, and great care should be taken that it is in close contact with the wood of the stock. When this is done, bind up with damp matting, or cotton twist, all except the bud, (see fig. 5,) which must be left free to the air.

* The Bengal, Tea, Bourbon, and some other free growing kinds may be successfully budded without removing the wood; in such cases it is better to cut the bud a little thinner, and not so long; in this way they have been known to make a growth and flower within six weeks after the operation.

but protected from the powerful action of the sun or wet, either of which would defeat the whole operation.

Fig. 4.

Fig. 5.



In eight or ten days the success of the operation will be known, and in two or three weeks the bandages must be loosened, though not entirely taken away. From June to the middle of September budding may be done, choosing always cloudy weather; or a few days after a heavy rain; but for limited operations any evening may be chosen, always following the indication of the free parting of the wood from the bark, for if the bark does not rise with facility the buds are liable to perish for want of a due supply of nourishment. The buds should always be selected from vigorous young wood that has never flowered.—About the end of October the plant should be cut down to within a foot of where the operation has been performed, which will greatly tend to strengthen both the tree and buds that have taken. In the following spring all the stocks should be deprived of their superfluous wood; observe, however, to leave one bud or eye above the inserted bud, which will greatly assist its growth till it has made a few leaves, and is fit to perform the functions of vegetable life, when the natural shoot must be cut off. As the new plant grows have it carefully supported, for one gust of wind in a moment of time, will decapitate the most cherished object.

Insects Injurious to the Rose.

Brown's Fumigator is a very simple portable instrument for the destruction of *Green-fly*, so prevalent amongst roses; the whole force can be brought to bear upon any plant in any situation by covering the plant with a sheet, if against a fence, or when fully exposed, all round; place a covering over it in the form of a tent, then introduce the nozzle under the covering, and by a simple turn of a handle, the tobacco smoke is delivered cool in a dense mass, and with the greatest safety in the hands of any operator. The implement is also indispensable in fumigating green houses, wardrobes, ships or dwellings during epidemic diseases. It can be used as well for purposes of perfuming with lavender, cinnamon, or other aromatic herbs. The *Rose Bug* is another very destructive enemy, which can be kept under by handpicking; they are found upon the flowers as soon as open. There is also the *worm* that destroys the bud before it opens. We seldom observe this in the country, but in some seasons it abounds in the city or town gardens, and must be extirpated by the hand.—*Rose Manual*.

Cultivation of Strawberries.

The following practical directions in regard to the cultivation of the strawberry, and the selection of the best varieties, we copy from the horticultural department of the *Genesee Farmer*:

1st. The ground (if not done last autumn) must be trenched eighteen inches or two feet deep, as soon as it is dry enough to work, turning in a liberal supply of old well decomposed manure—say at least a cart load to a square rod. When the ground has been trenched thus, it should all be turned over again, so as to pulverize it and mix well all parts of the soil and manure. When this is done, rake off and level the surface, and it will be ready for the plants.

2d. Procure good, strong, well rooted runners, or transplanted runners of last season. Plant in rows,

say three feet apart, the plants eighteen inches apart in rows, for all the sorts with large foliage; the wood strawberries (*Alpines*) may be six inches closer.

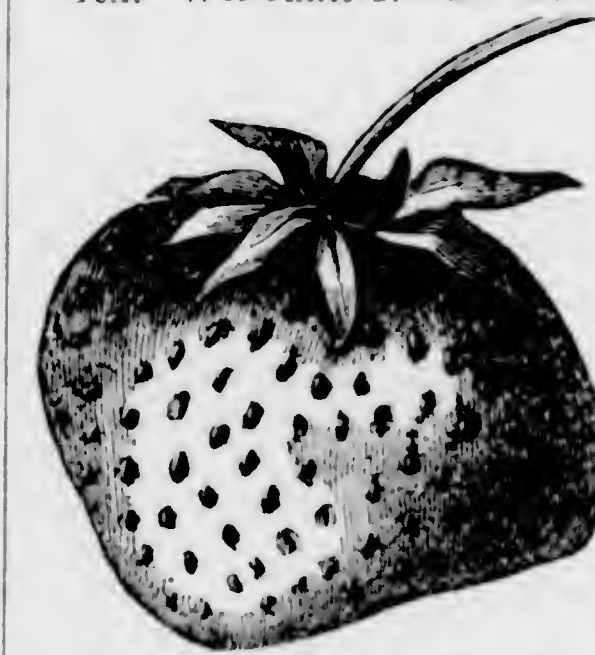
3. Keep the ground clean and well hoed as an onion bed all summer, and cut off all runners as fast as they appear, unless wanted to increase the variety,

and then only two or three should be allowed on each plant. In the autumn the plants will be luxuriant and large, covering half the ground, and in a fine condition to give a good crop next season. In dry seasons, mulching with a little tan bark, saw-dust, or old manure, will assist their growth very much.

4th. WINTERING.—In many districts no winter

protection is needed, but as a general thing a coat of three or four inches deep of straw or leaves, protecting the plants against the thawing and freezing of winter, is found very useful, greatly augmenting the vigor and productiveness of the plantation the following season. We always do it here in Rochester.

HOVEY'S SEEDLING, Fig. 2.



5th. TREATMENT OF THE PLANTS DURING THE BEARING SEASON.—Attend to the culture of the soil as on the first season, keeping it clean and friable; keep down runners; and provide for a liberal supply of water in case of drouth. The greatest drawback in strawberry culture, with us, is dry weather at the time of the swelling of the fruit; and if we want them large, we must apply water freely—let it flow over the plants in torrents three or four times a week.—Weak liquid manure, occasionally, will be a great aid in giving size. The result of all our observations at home and abroad, in regard to strawberry culture, is, that great size and heavy crops can only be obtained by a liberal supply of moisture in connection with deep rich soil. We have no space now to quote examples in support of this, but the fact is unquestionable, and it will be well to bear it in mind.

We now come to the selection of varieties, which is a matter of considerable importance. After many trials and experiments here in the vicinity of Rochester, and we ought to add extensive experiments both by amateur and market growers, the following varieties are pretty well settled down upon as the best and most profitable:

Burr's New Pine, (pistillate.) Fig. 1.—A large, light red berry of the finest flavor. Productive and hardy. R. G. Pardee, Esq., of Palmyra, a first rate amateur grower, exhibited specimens at last year's exhibition of the Genesee Valley Horticultural Society, measuring four inches in circumference, and they received the first premium.

Hovey's Seedling, (pistillate.) Fig. 2.—One of the largest and best American varieties—extensively grown and universally admired.

Large Early Scarlet, (hermaphrodite.) An old, fine variety. Good size, good flavor, and always bears well. One of the best for planting with the pistillate sorts.

Boston Pine, (hermaphrodite.)—A large fine, productive variety, under high culture, but worthless with bad treatment.

Hudson, (of Cincinnati.)—A most productive variety—the great fruit of the Cincinnati market growers. The Rochester people esteem quite as highly *Burr's Rival Hudson*—a late acid variety, fine for preserving.

To insure the fertilization of the pistillate sorts, one row of the staminate or hermaphrodite varieties should be planted between every four, or in some such proportion.

It is somewhat remarkable that scarcely any foreign varieties prove profitable for our cultivation. In England, and indeed in France—the great strawberry of the day—the one that in every garden and in every market attracts one's attention particularly—is the *British Queen*. We have never seen such crops of strawberries anywhere as those of the *British Queen* around London, in the gardens of the market growers. It does not succeed well here; or it has not so far, that we are aware of. A few large and fine berries, say three or four from a plant, may be obtained; but nothing that can be called a crop. It needs more moisture than it gets with us, and we hope to see it yet tested under favorable circumstances.

Next to the *Queen* stands the *Ellon*. This succeeds the *Queen*, being later. It is a large, conical, and beautiful berry. We are not aware of its having been successfully grown in this country, but it is worthy of further trial. In Europe no distinctions are made in regard to the "sexual" character of the strawberry, as in this country; all their varieties are staminate or hermaphrodite—that is, have both stamens and pistils perfect.

Cultivation of Flax—Claussen's method of preparing Flax Cotton.

As a reply in part to the inquiries of our correspondent, R. H., in the February number of the Journal, we make the following extracts from a recent pamphlet, entitled "The cultivation of flax, and the preparation of flax by the Chevalier Claussen process."—Since Claussen's great discovery, the cultivation of flax becomes a matter of serious inquiry. We have been favored with a specimen of the flax prepared by this method. It resembles cotton rather than flax, and from the fact that the process of bleaching, &c., is all performed in a few hours instead of months, as

formerly, must eventually become a matter of great national importance.

The subject of Flax Culture in the United States, and its preparation by the Chevalier Claussen process for spinning on cotton and woolen machinery, engrosses at present a considerable share of attention amongst nearly all classes of the community.

Hitherto we have been dependent on foreign importations for supplies of both the raw and manufactured article. The immense amount of labor expended on Flax, from the time it is sown till it is prepared for spinning on flax machinery, has been such as to preclude the possibility of raising it to advantage in competition with the foreign. Formerly, when raising Flax for spinning, it was necessary to pull it before seeding, or, when allowed to seed, the straw was thrown away as useless; but by the Claussen process, both straw and seed are equally valuable, and the old mode of pulling can be substituted by mowing or by the reaping-machine.

The soil best suited for its growth is a black loam, having a substratum of sand or clay. It grows on almost all kinds of soil; even on the sides of gravelly hills, good crops have been raised, but the latter kind of soil is better for seed than straw. Deep plowing and thorough cleaning are essential to its healthy growth. Many consider Flax to be a very exhausting crop, but English and Scotch farmers have found by experience that it does not impoverish the soil near so much as wheat. No soil, with the exception of our Western prairies and valleys, will bear cropping year after year with the same kind of grain, without returning to the soil a portion of the principal ingredients extracted from it. Flax can be raised annually on the poorest description of soil, provided it is manured with the excrements coming from animals fed on flax-straw and oil-cake or oil-seed meal.

A practical English farmer gives the following as the result of his experience in Flax-growing: Quantity sown to an acre, 2½ bushels. Quantity of seed raised to the acre, 20½ bushels. Amount of straw, 2½ tons. Even 22 bushels of seed and 2½ tons of straw are not considered a heavy yield.

The *Indiana Journal* says: "A farmer in Preble county, Ohio, this season raised 63 bushels of Flaxseed on 3 acres and 10 rods of ground, being over 21½ bushels to the acre. This, with the prospect of Flax Cotton manufacturing in this country, will indicate a prosperous business."

I know of no crop more profitable for a farmer to raise at the present moment than that of Flax. Say that he could raise no more than 18 bushels to the acre, and 1½ tons of straw, and calculating the former at \$1.25 per bushel, and the straw at \$5 per ton, and deducting 2 bushels for seed, it would amount to \$20.25 per acre. If the farmers in this country could be prevailed upon to sow more seed to an acre, the results would be found well worthy of trying the experiment. If the Archangel and Riga seed can be had, I would recommend its use for the first sowing.

WHAT THE FARMER MOST NEEDS.—It is not a college, endowed by the State; it is primary schools, to prepare farmers' sons and daughters for the higher walks in science as applied to agriculture. They need organization. They want farmers' clubs and neighborhood libraries of agricultural books. They need discussion. They need more intercourse, not only in their own town and county, but throughout the State and country, to see and learn what other farmers are doing.—*The Plow*.

Communications.

[THE following highly valuable article on the cultivation of Indian Corn, was prepared at our special request. We commend it to the earnest attention of our readers, believing that it will repay a perusal, and that the suggestions contained it may be profitably adopted:]

For the Farm Journal.

On the Culture of Indian Corn.

MR. EDITOR:—Indian corn being the most valuable of the cereal crops now produced by the farmer in Pennsylvania, as also in contiguous States, the best mode of cultivation, or the mode of cultivation by which the best results can be obtained, is a question of the greatest importance to the farmer. The corn crop is the more valuable to the farmer, because it yields twice, thrice, or quadruple the quantity the wheat crop yields in fair average seasons. It is not liable to the attacks of the many enemies to which wheat is exposed—the fly, frost, mildew, blight, smut, etc.—and being better adapted for, and more largely used, than any other grain, as the food of the various animals and stock of the farm, it is emphatically *the crop*. It is upon this grain, comparatively speaking, that all stock prepared for the market by the feeding of grain, is fed; and there is no grain upon which the graminivorous animals and fowls pertaining to the farm, delight so much to be fed, or can be so economically fed, as Indian corn, besides furnishing one of the most wholesome and nutritious articles of diet for men. The question then arises what is the best mode of cultivating the crop, or by what system can the greatest result be obtained. Different qualities of soil will doubtless require different modes of treatment, and no set of general principles can be laid down that will apply equally to all varieties of soil and situation. It is, however, a trite saying among practical men, that in the cultivation of the corn crop, if it starts well, it will almost invariably produce well, and if it does not start well, a poor crop may almost as certainly be anticipated. If this, then, be true, as an axiom or principle, it will be seen at a glance the necessity of a system of tillage, calculated in the best manner to stimulate and promote the growth of the plant in the first stages of its existence, as well as a system that will insure its perfect development as it advances to maturity.

In treating upon the cultivation of Indian corn, the subject naturally presents itself under a number of heads, or subdivisions, as plowing, manuring, planting, &c.

On Plowing.—In plowing for corn the mode and depth must be determined by the natural properties of the soil, and subsoil. In hard-pan and shale formations, impervious to water, on which, in seasons of a superabundance of rain, water is liable to lay upon the surface until it is evaporated, and vegeta-

tion thereby suffers from a surcharge of that element, in which also, in seasons of drought, vegetation is liable to suffer from the want of a supply of moisture, by the impossibility of it arising to the surface from beneath, the method of plowing most certain to insure a good crop would be the ridge system—that is, to ridge or throw the furrow slices together for every row of corn, thus leaving the openings between the rows to receive the superabundance of water in rainy seasons, as well as to accumulate the soil in rows, thereby to retain a greater amount of moisture in time of drought. In permeable soils, however, ridge plowing should ever be avoided.

In limestone soils, underlaid by a stratum of clay, experience has proven that if plowed to a depth sufficient to turn the clay upon the surface, corn will not start well—hence the necessity in this variety of soil of not plowing so deep for corn as to turn the clay upon the surface, otherwise to insure a good crop, manure will be indispensably necessary to stimulate it at the start. This variety of soil, however, with sufficient pains and care in the tillage to put the crop in a condition to start well, yields abundant crops.

In open gneiss and limestone soils, free alike from clay, hard-pan, or shale, deep plowing is always commendable. The decomposing strata beneath, possessing highly fertilizing properties, acts as a manure, besides affording more ample space for the ramification of the roots of the plants, absorbing also the superabundance of water in rainy seasons, as well as allowing a larger supply of moisture to arise from beneath in time of drought.

The time of plowing for corn is also a subject of diversity of opinion. Some farmers prefer to plow in autumn, some early in the spring, while others prefer leaving it as nearly as possible to the season of planting. Plowing in the autumn is resorted to as a remedy against the grub or cut-worm, and is perhaps as efficacious in its destruction as any other means that can be devised. Autumn plowing, however, if the winter is open and rainy, and admitting of the growth of grass during the winter and spring, leaves the soil heavy and solid and by no means in the best condition to promote the growth of the crop requiring also an additional amount of labor in its cultivation. Early spring plowing, as tested by experience, proves to be nearly or quite as efficacious in the destruction of the grub or cut-worm as autumn plowing, leaving the soil, from the action of the late frosts, in an open and porous and more favorable condition for the growth of the crop than when plowed in the fall, requiring also less labor in the subsequent cultivation. Late plowing, or leaving it as nearly as possible to the time of planting, may be as favorable to the growth of the crop as earlier plowing, but in soils, or of seasons, that grubs abound, the farmer may certainly expect the annoyance and mortification of seeing the

tender plants of his future hope preyed upon by these pests, and be subjected to the inconvenience of subsequent plantings, besides having his crop materially injured.

Manuring.—The quantity of land in this State wherein the corn crop would not be benefitted by a judicious application of manure is exceedingly limited. Corn, with all other artificial products of the farm, may be greatly benefitted by the application of barnyard manure, lime, plaster, ashes, or any other of the long catalogue of mineral, vegetable, or animal manures, which either stimulate the growth, or furnish the elements of plants, and a judicious application of manure will increase the crop from thirty to a hundred per cent. In the present system of rotation of crops, except in the vicinity of cities and towns, where a supply of manure may be purchased, farmers seldom have a sufficient quantity to give their corn crops a dressing of stable manure. I now wish to direct the attention of farmers to a system whereby they may increase their crop on an average forty per cent. without additional expense, and with a large remuneration for the additional labor bestowed—that is, by the compost heap. If farmers would collect the various substances, which are powerful manures, and which otherwise are lost, and deposit them in the compost heap, viz: the excrement of cattle dropped about lanes and other places where they frequent; the soil of rich spots about buildings devoted only to the growth of troublesome weeds, ashes, poultry manure, the debris of wood-piles, and many other substances which abound about the farm, a heap of compost would be obtained, yearly, sufficient if applied to the hills of corn, to manure the usual quantity planted in the system of rotation of crops now generally adopted, and increase the crop from thirty to forty per cent. Two men with carts will manure three acres per day. The advantage of this quality of manure over stable manure applied to the hills of corn, is, that stable manure is of a heating and drying quality, and is injurious rather than beneficial in dry seasons, while the compost manure will retain moisture equal to the earth itself, in addition to its fertilizing properties. This manure is within the reach of every farmer who chooses to avail himself of it, and tons are allowed to waste annually. Gypsum is reckoned to be beneficial to the growth of succulent plants, and if the farmer wishes to try the experiment of any of the *fancies*, as guano, poudrette or bone dust, he may perhaps be rewarded for his labor and expense.

Preparing the ground for planting.—The ground should be thoroughly pulverized by the use of the harrow, and if it should fail in reducing the clods, the roller may be advantageously used in connection with the harrow. As an axiom, it is impossible that any plant can obtain nutriment from a clod, which the feeders and spongioles of the roots cannot pene-

trate. The marking out for planting should be in transverse directions as nearly as convenient at right angles. This will admit of more thorough cultivation, and effectual destruction of weeds and grass, and insure greater regularity and certainty in the quantity planted. As to the direction the rows should run, it is a matter of little importance under our almost vertical sun. The distance of the rows from each other is a matter of greater importance. The growing plant of necessity requires a certain amount of air and sunshine, as well as a certain extent of space for the expansion of its roots, and if deprived of these requisites, will fail in producing as large a crop as would otherwise follow, if allowed sufficient space. There is a maximum number of stalks to a certain space that will yield the largest crop, and if that number is exceeded the crop necessarily suffers from want of space to admit of its perfect development, and not enough of stalks to a certain space implies a waste of ground. That this maximum has ever been arrived at with the certainty of a mathematical calculation the writer has yet to learn. Certain customs, however, have been adopted which may approximate very near to the point, and with the advantages of thorough cultivation afforded by marking out four feet by four feet each direction, with four stalks to the hill, may be very nearly the number of stalks to a given space that will yield the largest crop.

Time and method of planting.—The time of planting should be varied according to the nature of the soil. In open and friable soils corn may be planted advantageously much earlier than in wet or clay soils. In the former variety of soil the seed may lay in the ground for a considerable time, and the surface of the ground be frozen, and suffer no injury, and start as vigorously as soon as the genial rays of spring may call it forth, as if it had not been committed to the earth until the sun had reached its summer solstice. In wet or clay soils, prudence would dictate not to commit the seed to the earth until it had acquired sufficient warmth to cause it to germinate immediately, otherwise it would be in danger of rotting in the ground. Corn, in all cases when planted, should be well covered with pulverized earth to the depth of from two and a half to three inches. When covered the foregoing depth, if cut off in the start by frost or grubs, it will again put forth with but little appearance of injury, and if attended by drought, will be much better enabled to withstand injury from that source. To insure success in the cultivation of the corn crop, varieties should be chosen best adapted to the different varieties of soil. In soils admitting of early planting, late ripening varieties, or such as require a long season to bring them to maturity may be advantageously adopted, as it is these varieties that generally yield the largest crops. In wet or clay soils not admitting of early planting,

varieties should be planted which mature in a shorter period of time.

Cultivation.—The principal object to be accomplished in after cultivation is the destruction of grass and weeds, and to keep the soil well loosened and mellowed, to allow the tender feeders of the plant to ramify in every direction in search of its necessary food, and to put the soil in the best possible condition to absorb the dews and moisture of the atmosphere, and allow the moisture from beneath to arise towards the surface. As to the best mode of accomplishing this result, a difference of opinion may exist, but it is questionable if any thing better can be brought into requisition than the common fluke harrow or cultivator.

Quality of seed.—The quality of the seed is of the first importance. It is unreasonable to suppose that good and improved crops can be obtained by planting inferior seed. Seed of every description should be selected from the most perfect and best developed of its kind. J. A.

Chester county, March 18, 1852.

For the Farm Journal.

Agricultural Nuisances, No. 8.

STINKING CAMONILE, MAY WEED, DOG'S FENNEL, DILL WEED, FIELD WEED, RICHARDSON'S PINK.

French, Maroute. German, Stinkende Kamille.

Maruta cotula, Cass. M. foetida, Less. M. vulgaris, Bluff. Anthemis cotula, Lin. A. cotuloides, Raff. A. psorosperma, Tener. A. ramosa, Link.—Chamæmelum cotula, Pres. C. foetidum, Baum.—The derivation of the name of this plant is unknown. It belongs to the 19th class *Syngenesia* and 2d Order *Superflora* in the Artificial System of Linnaeus. To the Natural Order *Composita*, and sub-tribe *Anthemidea*, in the Flora of N. A.

There are but two species of *Manuta* now known, unless there should be a difference between the European and American plants. Our plant is set down as a foreigner, but it has the appearance of a native in the west, where it is very abundant in the vicinity of towns and villages, where it often becomes a great nuisance if not kept in subjugation. It never grows in the woods, but delights in neglected grounds, especially in limestone soils. In the West it often follows fallows, and is then deemed very troublesome.—I have noticed it spreading very rapidly in many parts of this State during the last ten years, and although an annual, it is not easily expelled, for the seeds will lie a long time without having their germinative properties destroyed.

It grows to the height of from 6 to 12 inches, covered with short hairs, it is much branched; the leaves are three times divided, the segments, flat, narrow and sharp pointed; the flowers terminate the long leafless, slender-grooved branches, each one bearing a single head, which are yellow in the centre and the rays white; seeds four sided, furrowed and rough, brown.

It blossoms from June to November, affording a

profusion of flowers about the size of camomile, but they are never double. The whole has a strong, unpleasant smell, and a bitter nauseous acrid taste.—It is often used as an auxiliary to a lobelia emetic.

The best means to control it, is to mow it frequently and thus keep it from producing seeds.

It is not generally regarded as a nuisance, and if permitted to remain undisturbed, it may yet prove to be a great annoyance, indeed. The farmer should promptly destroy all useless weeds and not permit them to obtain a hold on the farm.

J. M. McMINN.

Unionville, Centre co., Pa., March 6, 1852.

For the Farm Journal.

Trees and Shrubs for Fencing.

About 35 years ago, a wire manufactory was established near the falls of Schuylkill. At that time, Anthracite coal was not in use, and fuel and fencing more expensive than at present; and considerable effort was then made to introduce a mode of enclosing fields, by planting trees for timber at suitable distances—15 feet more or less around the field, and connecting them by a few bars of wire, from tree to tree.—The projectors indulged themselves in making calculations of the profit arising from the timber; but neglected to make any allowance for the diminution of the crop in the vicinity of the trees. Wire fences were for some time occasionally seen, but the wire was then very costly as compared with the present price, and wire fences did not come much into use, and more rarely on farms than on pleasure grounds. At the present reduced price of iron it may now be worth while to enquire whether wire cannot be profitably used to strengthen hedges to restrain horses and cattle; (not swine,) especially such hedges as are formed of trees that are required to be kept dwarfed, such as Osage Orange and Cockspur thorn. By putting the hedge plants at twice the usual distance apart, and by planting posts along the line of hedge say 15 feet apart, and connecting them by two wires, one at three, and the other at four feet from the ground—the hedge will offer sufficient resistance to cattle, as soon as the wires are covered by the plants. In cases of plashing or filling up thin places in the hedge by bending the plants, they may be fastened to the wires. When the posts decay it will not be necessary to renew them, as the trees or hedge plants will have acquired sufficient size to hold a staple or large headed spike to which the wires may be fastened.

Of trees and shrubs not thorny, hedges are sometimes made, but generally as a screen or cover on the edge of a bank; for this purpose Red Cedar, Common Juniper and Arbor Vite are suitable, and if connected by wire, as proposed above, would probably answer as a farm hedge.

The price of plants from one to two years old for hedging, of Thorn, Buckthorn or Osage Orange, will vary probably from 6 to 10 dollars per thousand.

which, supposing it to be 10 dollars, the cost of plants, for 60 perches, equal to 90 panels of fence, will be 10 dollars, the plants being one foot apart, or 15 dollars if 8 inches apart. I believe Osage Orange should not be less than one foot apart, and I have hope that we shall hereafter find two feet apart to be better. I believe that Cattle will not browse Osage Orange or Buckthorn, and therefore they will not require an additional fence for their protection till they become a hedge.

Those who choose to propagate from seed will find less difficulty with Osage Orange, Wild Plum and other seeds of large size that come up the first year, than with Thorn, Buckthorn, Sheepberry, &c.; that do not generally come up till the second spring. It is always better to raise the plants in a good seed bed, in good garden ground, than to sow the seeds where it is intended the hedge shall stand, and thinning the plants to the proper distance. The strong and weak plants should not be intermingled in planting, but the strong planted together, and the weak together.

It is well ascertained that the English White thorn which is considered the best hedging plant in England, is very inferior to many of our native plants for hedging here; and it is very probable that the species which may hereafter be found the best for hedges on the gneiss or mica slate ranges, will not be best suited for the purpose on the old red sandstone or other formations. Experience must determine; and experiments are cheaply made as regards money, but in order to be of much value require care and attention. Will those who have succeeded give us their experience through the Farm Journal.

ALAN W. CORSON.

Montgomery County, 1st mo. 22, 1852.

For the Farm Journal.

Remedy for the Grain Weevil.

MR. EDITOR:—In a former number of your valuable Journal, I observed a description of the grain weevil, and some directions in regard to its extermination. Deeming it a matter of much interest to the farmer, miller and grain dealer, permit me to recommend a plan which I have always found very effectual. Take air-slacked lime, pass it through a fine sieve, and apply it at the rate of four quarts to the hundred bushels of grain, in the following manner: First, sweep the floor of the granary perfectly clean; then sprinkle a little lime regularly over it, either with the hand or sieve, as may be most convenient; then place the grain on the lime to the depth of six inches. Apply the lime as before, and rake thoroughly with a hand rake. Continue placing the lime and grain in alternate layers to any extent that may be required; always being careful to mix well.—Lime may be applied to any kind of grain, without fear of injury, and will be found to be a most certain preventive of that destructive insect, the weevil.

NORRISTON.

Norristown, Montgomery county.

Emigration of Pennsylvania Farmers.

MR. EDITOR: Ever since I became a subscriber to the Farm Journal, I have been anxiously looking for some of your correspondents to say something in regard to the emigration of so many of the farmers of Pennsylvania to the Western States. This tide of emigration seems to flow mainly from the Eastern Counties, and those who remove appear to have forgotten the fact that there are other portions of the State—portions which present as many inducements to the emigrant as the far famed lands of the west. We have lands composed of every variety of soils, at almost every price, and abounding in all the conveniences of market which excellent Canals and Rail Roads leading directly to the seaboard afford. Why is it that this subject has not been more frequently pressed in our Agricultural Journals? as the removal of our farmers cannot but be regarded as an evil of serious magnitude. Almost every one of our newspapers abounds in recommendations of the Western lands. The strongest inducements are held out to emigrants, and those desirous of entering into land speculations; while the merits of our own beautiful and productive valleys, are wholly overlooked. Again, we hear of many farmers purchasing the worn out lands of Maryland and Virginia, at prices as great as they would be asked for lands of excellent quality in many of our Western counties. If it were more generally known that new, rich, and vacant lands are to be had in Pennsylvania, at a less price than the exhausted soils of Maryland and Virginia, might it not have the effect of staying this drain upon this valuable portion of our population? I think so, and earnestly hope that those who feel interested in the agricultural prosperity of our Commonwealth—those who reside in those sections of the State where good lands are cheap, and where market facilities are good, will make the Farm Journal a medium for communicating the facts to the public. By doing so, they will lend a helping hand to a good cause.

J. S. F.

Penn Valley, Centre co., Pa.

Maxims for Farmers.

Do not sow your grain or cultivate your crop in any particular manner because your father did so. He may have followed in the footsteps of your grandfather, and agriculture was not as well understood then as now. "Prove all things and hold fast to that which is good." If not reject it and try another plan. Nothing of importance was ever yet gained without some risk. Experiment is the mother of science.

One acre well cultivated will produce more than two only scratched at, and with far less trouble. What is worth doing at all is worth doing well.

Do not have a superabundance of farming implements; but let what you have be of the best kind, and keep them well sharpened. A sharp will cut twice as much as a dull one, and do it much better.

Never plough in wet weather, if you can avoid it. Besides doing injury to the crop, it impoverishes the soil. It will not rain always.

THE FARM JOURNAL.

Agents.

THE FARM JOURNAL may be had at the following places:—

W. B. ZIEBER, South 3d St., principal agent for Philadelphia.	Lancaster, Pa.
W. H. SPANGLER,	Columbia, Pa.
B. F. SPANGLER,	Harrisburg, Pa.
GEO. BERGNER,	Pittsburg, Pa.
H. MINER,	Chambersburg, Pa.
J. R. SHRYOCK,	Carlisle, Pa.
H. M. RAWLINS,	York Pa.
A. L. WARFIELD,	

and of Booksellers generally.

Our Office.

Those having business to transact with us will please call at the Book Store of W. H. Spangler, in North Queen street, Lancaster, where we or our representative will at all times be in attendance.

The New Volume—Subjects for discussion, &c.

In entering upon the second year of the existence of the Farm Journal, we cannot forbear an expression of thanks to those old friends who have again kindly tendered their influence in behalf of the new volume; as well as to the new ones who have so effectually proven their interest in our enterprise. Twelve months since we issued our first number with but a single subscriber. Now, we issue the first number of our second volume with hearty assurances of support from almost every section of our own State, as well as from those adjoining. This is not only encouraging, but highly gratifying, and in the name of Pennsylvania agriculture we thank those who have thus far sustained us.

During the year upon the threshold of which we now stand, we hope to do much to improve the Journal in typographical appearance, as well as in the character of the matter presented. There are many subjects of vital interest to the farmers of Pennsylvania, which we hope to have discussed, and to these, we now take occasion to invite the attention of our correspondents:

We would like to present all the information possible in regard to the wool growing interests of the State—the character of the sheep generally raised—the amount of the yield of wool of particular flocks, and of townships and counties—the mode of feeding—the sections of the State best adapted to sheep, and all other matters pertaining to the business.

We are desirous of presenting all the information possible in regard to the cultivation of Flax, and the discussion of the question whether it might not be made one of the most profitable of our crops.

We are desirous of learning from the farmers on our own best wheat-growing lands, their method of cultivating wheat—the amount of yield now, compared with that of ten or twenty years since, and the pro-

fits per acre. The same favor we ask of our experienced corn growers.

We want practical information on the subjects of liming, green cropping, the use of concentrated manures, the rearing and fattening of stock, the whereabouts of improved stock, the comparative merits of the respective breeds, &c.

We want all possible information in regard to fine fruits, especially seedlings, and on all branches of horticulture. And to sum up the whole, we want every farmer or friend of agriculture who has tried an experiment which has proved successful, and which he deems valuable, to communicate it for the Journal.

Shall we have the information upon these various points? Will our friends respond to this invitation? We hope they will; promising them if they do, a Journal equal in practical value to any of our neighbors. We promise this because we know that our State abounds in just such material as we require for the fulfilment of our word. Sit down then, at once, or at the first leisure moment, and write out your experience and observation. Never mind finished sentences and well rounded periods. Give us the facts in your own plain common sense way of talking. If they require pruning or dressing, we will attend to it, if you desire it. Do this, and our word for it, Pennsylvania agriculture will, before the expiration of another twelvemonth assume its rightful position.

HOW OUR LEGISLATORS APPRECIATE THE FARM JOURNAL.—It affords us pleasure to state that more than one hundred out of one hundred and thirty-three members of the Senate and House of Representatives have subscribed for our Journal during the past week. The few who declined were those whose pursuits are in no wise connected with farming. For this handsome addition to our list, we are indebted mainly to several members of the House who have ever been our friends. They will please accept our thanks.

LENGTHY COMMUNICATIONS.—We earnestly request those who favor us with communications to make them brief and to the point. We wish to present as great variety as possible, and can do this only by publishing short articles. Many subjects of course require to be treated at length, and for such, due allowance will be made. We are desirous of having our articles copied as extensively as possible, by the newspaper press; to accomplish which, short communications are absolutely necessary.

BOUND VOLUMES.—In the course of a week or two we will be able to supply bound copies of the first volume of the Farm Journal. Our stock of back numbers is not large, so that those who wish to secure them had better apply early.

A challenge to the wool growers of the U. States.

We make the following extract from a letter received from A. L. Bingham, of West Cornwall, Vermont. Those who attended the State Fair, at Harrisburg, will remember the fine French Merino Sheep, exhibited by Mr. B., to which were awarded the first, as well as an honorary premium, by the committee on sheep. Mr. Bingham's challenge is a broad one: and we shall be glad to learn that there are other wool growers in the United States, whose flocks are of such a character as to induce them to accept his proposition. We shall take pleasure in giving our readers the result of Mr. B's. shearing, as well as of any other that may be furnished us.

"I propose on the 18th and 19th days of May next, to make a public shearing of my French Merino Sheep for the express purpose of giving the public an opportunity of judging whether these sheep carry any wool on their backs or not. I shall shear from 50 to 100 against a similar number from any one man's flock in the United States, in an unwashed state. I say unwashed, because it is the fairest way of testing the merits of the different breeds. The whole shearing will be under the special direction of a committee appointed at the meeting. The weight of fleeces and carcasses shall be most carefully ascertained, so that there may be no doubts as to the actual result.

I will at the same time dispose of a few yearling bucks just imported; also a few ewes, and exhibit some specimens of crosses of the French on the Spanish ewes, and some cattle and horses of improved breeds. The attendance of yourself and friends would be highly gratifying.

Yours,

A. L. BINGHAM.

West Cornwall, Vermont.

ERRATA.—Several vexatious blunders crept into our first form, in consequence of the unavoidable absence of our proof-reader, at the time of sending it to press:

For "mesine" in eleventh line, second column, on page 6, read *measure*: and for "Hydro-feno cyanite" in fourth paragraph first column page 7, read "Hydro-ferro cyanite."

The second paragraph of the article on corn, on page 7, should read as follows: For the last six years I have been experimenting, for the purpose of ascertaining the best mode of growing corn, and have come to the conclusion that one great error into which our farmers fall, is that of planting too close; from three feet to three feet six inches being the distance usually allowed between the rows each way.

NEW CLUBS.—As we hoped and anticipated, new Club lists are flowing in upon us, and old ones with handsome additions are following them. Press on the good work friends, and we will do our part.

COCHIN CHINA FOWLS.—Those desirous of purchasing fowls of this variety, are referred to the advertisement of Mr. Sampson, of West Roxbury, Mass.

SHANGHÆS.—We are requested to state that Aaron Clements, Cedar Street, above Ninth, Philadelphia, has on hand a number of superior Shanghæes which are offered for sale on reasonable terms.

Book Notices.

The Book of the Farm, detailing the labors of the farmer, steward, plowman, hedger, cattle-man, shepherd, field worker and dairyman, by Henry Stephens, with 450 illustrations. To which are added explanatory notes, remarks, etc., by John S. Skinner, Editor of the Farmers' Library. 2 vols. New York: C. M. Saxton, Agricultural book publisher.

These noble volumes devoted to the interests of the farmer have been laid on our table, by the publisher. It is not necessary that we should more than refer to this book. The high character of the author, as well as the American editor, (the late John S. Skinner, the pioneer of American agriculture,) should at once commend it to public favor.—However much we may boast of the progress we are making in husbandry, it is not to be denied that English agriculturists are far in advance of us. Hence, the experience of those familiar with the English system, cannot fail to prove beneficial to the American farmer, and more especially, when the genius of a man like Skinner has been brought into requisition to adapt the work to our own country. It is handsomely printed, abounds in valuable and well executed illustrations, and can be purchased on the most reasonable terms.

Rural Homes, or Sketches of Houses, suited to American country life, with original plans, designs, &c., by Gervase Wheeler. New York: Charles Scribner, 145 Nassau st.

We are indebted to the publisher for a copy of this beautiful volume, and have examined its contents with no ordinary feelings of pleasure. It is precisely such a volume as has long been needed by the American farmer; having for its leading object, the embodiment of a fixed principle in rural architecture.—Every variety of home usually needed, will be found embraced in it, with plain, yet complete and accurate details in relation to the site, model, expense, warming, ventilation, selection of furniture, &c., with practical directions to the inexperienced builder in relation to contracts, specifications, &c. The whole work is admirably adapted to the diffusion of more refined taste in the erection of country houses: combined with utility and economical expenditure. A specimen of beautiful typography, abounding in illustrations of masterly execution, and furnished at the low price of \$1.25, it should at once find a place in every man's library, who is desirous of improving the character of American rural architecture.

The Fruit Garden, a treatise intended to explain and illustrate the physiology of fruit trees, the theory and practice of all operations, connected with the propagation, transplanting, pruning and training of orchard and garden trees, as standards, dwarfs, pyramids, espaliers, etc., the laying out and arranging different kinds of orchards and gardens, etc., by P. Barry, of the Mount Hope Nurseries, Rochester, N. Y. Charles Scribner, New York, 1851.

This valuable treatise, indicated by the title above

has already met with a most cordial reception from fruit growers generally, and merits the attention of every person who feels desirous of improving the character of his fruit, or the appearance of his grounds. The ample practical experience and high reputation of its author, are the best guarantees of the character of the work. We feel no hesitancy in recommending it to those of our readers who desire a more general knowledge upon the interesting subjects of which it treats.

THE MONTHLIES come to us abounding in much to interest. *Graham, Godey and Sartain* all strive with most commendable energy for the supremacy; but so well do the trio appear to be matched, that it would seem invidious in us to speak of any one, more highly than the rest. Those of our readers who desire a good literary magazine, will find it in either of the three. Next come *Harper* and the *International*, both sterling publications, rich in valuable matter, and well worth the price asked for them, \$3. *Littell's Living Age*, unquestionably one of the best publications of the day, \$6 per annum. *The Horticulturist*, the file leader in all that relates to the progress of horticulture in the United States. We always welcome it with pleasure, and read it with profit. *The Western Horticultural Review*, Cincinnati, ably edited and well sustained by a list of excellent contributors, and one of our very best exchanges.

The Edinburgh Review, for January, is received from the publishers, Leonard Scott & Co., New York. The marked ability which characterises the articles of this long established periodical, renders it a most pleasant and agreeable visitor. The contents of the present number are, 1st, Genius and Writings of Descartes. 2d, Bishop Philpotts. 3d, Recent Progress of Literature. 4th, Church Music. 5th, A few words on International Copyright. 6th, Palgrave's Normandy and England. 7th, The Ordnance Survey of Scotland. 8th, the Expected Reform Bill. For terms of all the Reviews, see March No., page 369.

INDEX TO THIS NUMBER.

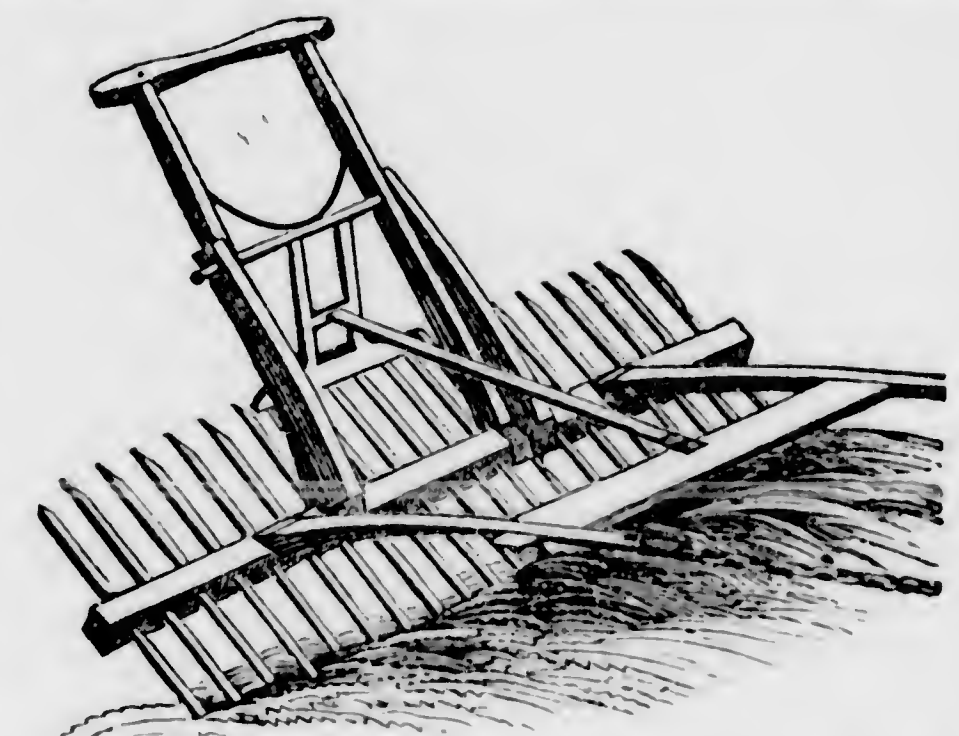
Protection to Sheep against dogs,	page 1
Experimental Farm,	1
Agricultural Chemistry,	2
Mr. Gowen's Address,	4
Curing of Corn Fodder—Cutting for Food,	5
Profits of keeping Fowls,	5
Applying Bone dust to Indian Corn crops,	6
Corn—Late vs. Early Planting,	7
Geology applied to Agriculture,	8
South Down Sheep, &c.,	9
Fruit Trees—Planting Seeds—Budding, &c.,	11
Mr. Gowen's Address before the Lane. Co. Ag. Soc.,	12
Hen-Cock Game Fowl—Illustrated,	17
Bolton Grav. or Creole—Illustrated,	17
Budding Roses—Illustrated,	18
Cultivation of Strawberries—Illustrated,	19
Culture of Indian Corn,	20
Agricultural Nuisances,	21
Trees and Shrubs for Fencing,	23
Remedy for Grain Weevil,	23
A word to Pennsylvania Farmers,	24
Maxims for Farmers,	24
The New Volume—Subjects for Discussion, &c.,	25
How our Legislators appreciate the Farm Journal,	25
Lengthy Communications,	25
A Challenge to Wool Growers,	26
Errata,	26
New Clubs,	26
Book Notices,	27

PREMIUM STRAWBERRY "MOYAMENSING."

THIS new and very superb variety raised by G. Schmitz, Esq., near Philadelphia, and to which a special Premium was awarded by the Pennsylvania Horticultural Society, was purchased by the subscriber, and is now after a fair trial of three years, for the first time offered to the public.

It possesses advantages over all others that I have as yet seen, or cultivated—is remarkable for its robust and vigorous growth—perfectly hardy, enduring the extremes of heat and cold, is very productive, producing a greater average of large berries from one plant than any other, and nearly equal in size to the "Hovey's Seedling." Its great merit is its rich and high flavor, in which it excels all others—it is much better adapted for market, (for which purpose I am growing extensively) as its fruit is not so easily injured by carriage. Straw Plants now ready for delivery at \$2 per doz., or \$12 per 100. JAMES M. TAGE, Burlington, N. J. Address orders to Henry A. Dreer, Seedsman and Florist, No. 59, Chestnut street, Philadelphia.

April, 1852.



JOHNSON'S IMPROVED REVOLVING HAY AND GRAIN RAKE.

THIS Rake is got up in detached pieces, so as to make it convenient for transportation and storage, and so complete that any pair of handles and shafts will fit on any Rake of his manufacture. The above Rake can be obtained of the subscriber at his residence, or at his Mills near Newark, Delaware, either by wholesale or retail. They can also be obtained at my several agencies established in Pennsylvania, Delaware, Maryland and Virginia, of which extensive notice has already been given.

The utility of this Rake is so well established and extensively known, that it is deemed unnecessary to dwell much upon its merits in this advertisement. It is proper however, to state that it has always been awarded the premium, at Agricultural Exhibitions, where the competition was fair.

The utmost care is observed by the manufacturer in the selection of timber for these Rakes. None but the best being used for that purpose. They are also ironed in the best manner. Having been engaged in their manufacture for thirty years, the subscriber is very desirous that the high reputation which these Rakes have hitherto maintained should be sustained. It is therefore his wish to dispose of them as far as practicable, by wholesale.

Dealers in Implements will do well to send in their orders at an early day. Orders shall be filled immediately, and the Rakes delivered at the most convenient landing or depot for further transportation.

These Rakes have been found to be the most economical in use, saving their cost at a single day's raking of Hay or Grain. They have also been found very useful in taking straw from a thrasher to where it is wanted to be stacked. W. O. JOHNSON, London Grove, Chester county, Pa.

SIDLE'S HUB, AUGUR AND BOX REGULATOR.

THE subscriber residing in Dillsburg, York county, Pennsylvania, has invented a new and improved Augur for the boring of hubs, and setting the boxes of wagon, carriage and other vehicle wheels for which I have obtained letters patent.

The Augur will bore both ends of the hub at the same time, or either separately—and is the most useful and important invention of the age for inserting wagon boxes and the only Machine in existence by which they can be inserted exactly true—and is so perfectly simple in its construction, and constructed on such just mechanical principles, that it cannot possibly get out of repair.

With this Augur a set of boxes can be inserted in a few minutes—where under the old system it requires hours to perform the same amount of work.

Persons wishing to purchase Territory or Shop rights will please address the subscriber, who will sell on terms that will enable the purchaser to make money. HENRY SIDLE, Dillsburg, April, 1852—tf

WM. B. WILEY, Job Printer Lancaster, Pa.

COCHIN CHINA FOWLS FOR SALE.

THE subscriber offers for sale a few pairs of his fine stock of COCHIN CHINA FOWLS, of his own importation, warranted pure blood and true to their name. Orders for the same, post-paid, addressed to the subscriber, will receive due attention.

CHARLES SAMSON, West Roxbury, Mass.

April, 1852—2m

EMERY & COMPANY,

Sole Manufacturers for the United States of the New York State Agricultural Society's First Premium RAILROAD HORSE-POWER,

PATENTED BY H. L. EMERY, FEBRUARY 21, 1852.

Manufactory on Hamilton, Liberty and Union streets; Warehouse and Sale Rooms, Nos. 369 and 371 Broadway, Albany, N. Y.

THE above Horse Powers have been awarded the highest premiums at the Fairs of the New York State Agricultural Society in 1850, and again in 1851; also, the highest Premium at the Michigan State Fair, at Detroit, Mich., in September, 1851, where a majority of the Committee owned and were using Wheeler's Powers on their farms, having purchased them previous to seeing our own: also a Gold Medal at the American Institute, in 1851. It was also exhibited at the State Fairs of Ohio, Maryland and Pennsylvania, and received the highest awards which could be given by the rules of their Societies. In every case, it has been in competition with all endless chain Powers of any note in this country.

Over SIX HUNDRED sets of the above Powers were sold and put in use from June to January last, not one being returned or failed. To enable the public to distinguish the above Horse Power from all others, we here show its principal, and most important parts, by diagrams and references—beside like diagrams and references of the Rack and Pinion Power, as made by ourselves, Wheelers, and others; and also the Rack and Pinion, with epicycloidal teeth, which has long been successfully used in this vicinity, and which, with our recent improvements, in its adaptation and application to our Horse Power machinery, places it the first on the list of Rack and Pinion Powers.

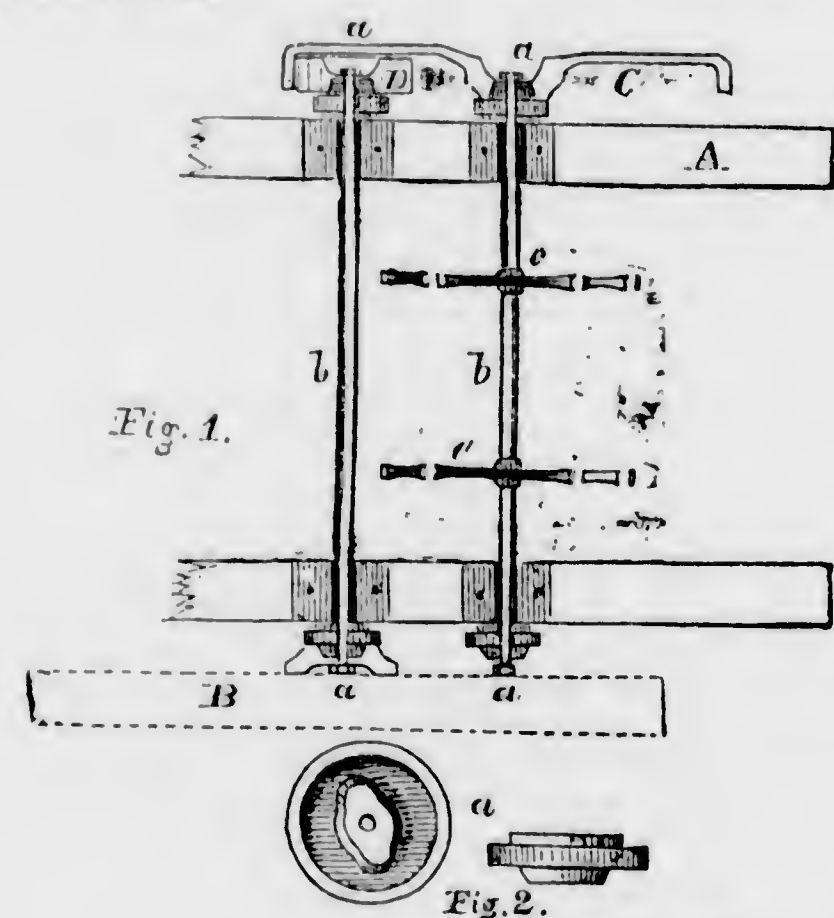
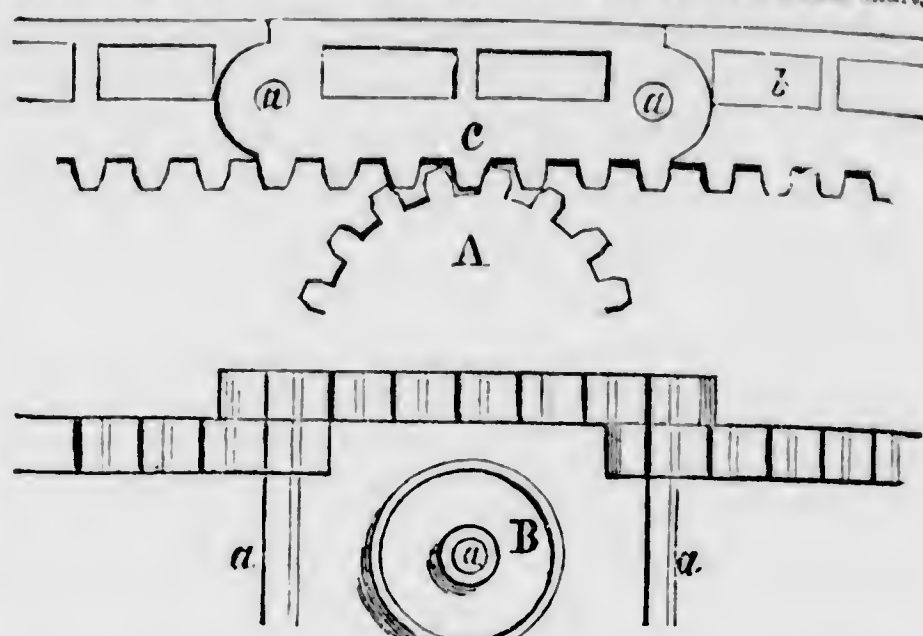


Fig. 1. A. A.—Main sills or timber of the power supporting the shafts. B.—Band pulley upon one of the shafts. C.—Pinion or small gear upon the same shaft with pulley. D.—Converge or internal gear upon the main shaft, and working into and over the pinion. b. b.—Main and counter shafts of power. c. c.—Reels upon the main shaft, which support the endless flooring in its circuit, and carry the shaft.

Fig. 2. Shows a side and edge view, (enlarged,) of the couplings. Fig. 3. Side view of converge or internal gear and pinion. Fig. 4. Side view of one of the two reels, c. c., on the main shaft.

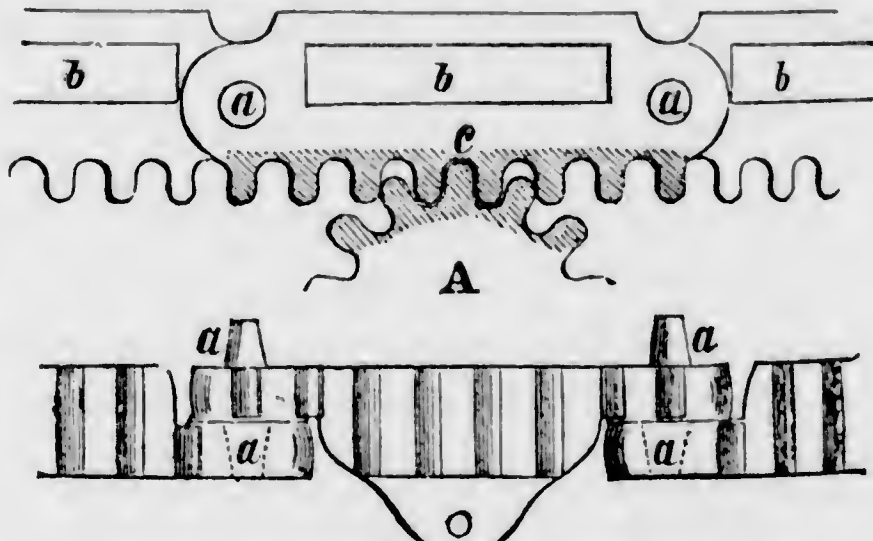
a. a. a. a.—Couplings upon the ends of the shafts, fitting all the pulleys and gears.

Fig. 2. Shows a side and edge view, (enlarged,) of the couplings. Fig. 3. Side view of converge or internal gear and pinion. Fig. 4. Side view of one of the two reels, c. c., on the main shaft.



Common Rack and Pinion Power, as manufactured by ourselves, Wheelers and others.

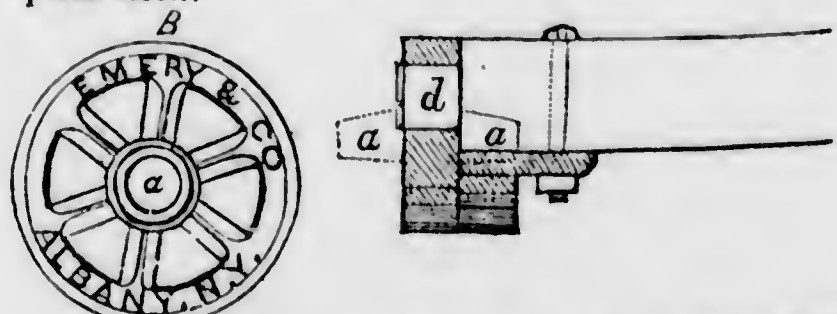
B.—Side view of one of the 72 (or 36 on each side,) small truck or friction wheels, which traverse with the endless flooring—being about 3 1/2 inches diameter. C.—Side view of the 72 (or 36 on each side,) links or segments of the chain, each of which are six inches long, as seen connected with others. a. a. a. a.—The eyes of the links and small rods crossing the power and extending through the links, and far enough outside to receive the small trucks. A.—Side view of a section of one of the pinions or small cog wheels, two of which are placed upon the main shaft, and receive the motion and force from the cogs on the links of the chain. This pinion is about four and a half inches diameter, and the band pulley is used upon the same shaft, which for threshing, is four feet diameter. The lower view represents the teeth or cogs, as seen with links inverted.



Emery's Improved Patent Rack and Pinion Power, with Epicycloidal teeth.

c.—Shows a side view of one of the links or sections of the chain of which there are but sixty, or thirty on a side, and are each seven inches long; every alternate link is cast with dovetails, a. a. a. a. a. projecting each side; those on the inside connecting with the other links, while those on the outside receive the truck wheels, thus avoiding the necessity of small cogs, and expense of fitting up. The eyes of the links and truck wheels are cast upon steel chills—making a perfect, and hard smooth surface, which will not wear or break—while the dovetails are sufficiently large and strong to withstand more than the cogs themselves.

The lower edge of each link is widened equal to the face of the pinion, and the cogs made to extend the whole width of the pinion, as shown in the lower cut, representing the link inverted, presenting double the strength and driving surface, as shown in the last kind; every alternate link is confined to the plank flooring by a small screw bolt passing through a flange upon the inside of the link, and under the plank itself.



A.—Shows a section of the pinion, which is a little larger in diameter than the last—the teeth of which are epicycloidal in form—as are those on the links working into them—which is acknowledged by all mechanics and engineers to be the strongest and most perfect form of teeth, and works with less friction and wear, as the driving surfaces present to each

HIGHLY IMPROVED ESTATES AND VALUABLE TIMBER LAND,

On Lower James River, For Sale.

THE undersigned prevented by engagements, requiring his undivided attention elsewhere, from residing on his estate, will sell publicly, (unless previously sold privately, of which due notice will be given,) before the Bollingbrook Hotel, in the city of Petersburg, Virginia, at 11 o'clock, on Wednesday, the 26th day of May next, without reserve or regard to weather, that valuable body of highly improved arable and heavily timbered land, extending up the north side of James river, from the Chickahomony river, in the county of Charles City, Virginia, about 5 miles, well known under the general designation of SANDY POINT. This estate lies 32 miles below Petersburg, 45 miles below Richmond, and about 65 above Norfolk, in what is justly considered the finest and most extensive grain growing region of Virginia, and as healthy as any on tide water. Spring and well water abundant and good. The whole tract contains 4,454 acres of unsurpassed natural quality, of which 2,150 have been thrice limed, and are now in a high and successful state of cultivation, upon the five field rotation, with more than 500 acres well set in clover. The balance chiefly in wood and timber, embracing a body of some of the best timbered land in Eastern Virginia, convenient to good navigation. Marl abounds on the river, and Stone Lime of excellent quality is 6 1-2 cents per bushel.

The sub divisions are as follows—

THE NECK—contains 934 acres, 551 limed, clovered, and in a high state of cultivation; 168 in wood and timber, and 214 meadow or marsh land well meadowed and reclaimable at small expense. A valuable winter Fishery belongs to this farm. BUILDINGS—A small new frame dwelling, smoke house, negro houses, stable and large barn, with stationary horse power and shelter.

LOWER TEDINGTON—contains 834 acres, 550 limed, clovered, &c., 232 principally in wood and timber, and 31 in reclaimable meadow. BUILDINGS—A new frame dwelling with 4 rooms and a passage, negro houses, a large and well arranged barn, with stationary horse power and shelter; two large stables for horses, oxen, &c., extensive hay house and spacious and well arranged buildings, for the protection of wagons, carts and all farming utensils, &c.

UPPER TEDINGTON—the Family Residence. Contains 775 acres, 532 limed, clovered, &c., 229 principally in wood and timber, and 14 in reclaimable meadow. BUILDINGS—A commodious wooden dwelling, large two storied kitchen and laundry, ice house, new and spacious carriage house and stable, servants' houses, &c., &c. Also, a new Barn, part wood and part brick, with 4 floors 80 by 35 feet, and a wing 30 by 50 feet, with bone, plaster, saw and grist mills. In the barn there is all the necessary machinery for threshing and winnowing wheat, shelling and grinding corn and sawing timber, all effectually driven by a 16 horse power stationary engine in complete order and condition. A large orchard stocked with every variety of fruit, in successful bearing is attached to this farm.

UPPER QUARTER—contains 536 acres, 516 limed, clovered, &c., 290 principally in wood and timber. BUILDINGS—A small frame dwelling, kitchen, laundry, smoke house, negro houses, barn with stationary horse power and shelter and stable.

Each of the above four farms has a river front, with landings, at which wharves can be erected cheaply and conveniently if desired. To "Upper Tedington," within 100 feet of the barn, belongs a new, commodious and substantial wharf, at which the largest size vessels lie, steamers, sea and river, pass twice a day, frequently oftener, plying between Petersburg, Richmond, Norfolk, Baltimore, Philadelphia and New York.

In addition to the above described four farms and timber and wood land thereto attached, are the following valuable timber and wood lots eligibly situated, convenient to navigation, which will make farms as desirable and productive as those above described:

No. 1, containing 215 acres; No. 2, 193 acres; No. 3, 214 acres; No. 4, 223 acres; and No. 5, 147 acres.

Mr. Nicol, residing at Sandy Point, will be prepared to show the property in my absence, and a particular and thorough examination is invited at any time previous to the day of sale. Accurate plots of each sub-division have been prepared and are ready for inspection. Possession of the timbered lands given immediately after the sale; of the farms at the end of the year, with the privilege previously, of fallowing and seeding wheat.

TERMS.—For the farms, one-fifth cash, the balance in five equal annual instalments from the 1st January, 1853. For the timbered lands, one-third cash, and the balance in three equal annual instalments from day of sale. The credit payments to bear interest and to be secured by deeds and bonds, or notes with approved securities or endorsers.

Petersburg, Virginia, February, 1852. WM. PANNILL & SONS, Auct'rs.

ALDERNEY AND IMPROVED SHORT HORN CATTLE.

THREE thorough bred Alderney BULLS, from nine to eleven months old, raised from the choicest imported stock. Also, two thorough bred young short horn Bulls, ten months old, raised on the farm of Mr. T. P. Remington, near Philadelphia, and for sale by AARON CLEMENT, Agent for the purchase and sale of improved stock, Cedar street, above 9th street, Philadelphia. February 20, 1852.

other a rolling, instead of sliding friction; this kind of teeth, on account of their rounded form, work much deeper into each other, and have little or no inclination to lift out of gear.

The last cut shows the construction of the truck wheels, which are 1 1/2 inches larger in diameter, and revolve on larger circles at the ends of the power—giving them an advantage over the smaller wheels. A section of a link is shown with the end of the flooring attached; these planks are all one inch wider, and consequently wear up by use much closer, before bending or breaking under the weight of the animals. As a Rack and Pinion Power, the latter has every advantage over the common kind in use; is manufactured at a less cost; is equally strong and durable, and is more easily handled, as its weight is some two hundred pounds less.

Either of the above kinds of powers are offered to the public, each upon its own merit, with a full warranty as to workmanship, material and operation, (and with a guarantee of right of using in all parts of the United States,) subject to be returned within three months—and purchase money refunded. For prices, &c., see Illustrated Catalogue, furnished gratis on application, or by mail.

The first on the list is the highest in cost, and is found preferable in all cases, and under all circumstances. The power of the revolving platform being applied to the main shaft, by means of reels with larger diameters than the pinions used in the Rack and Pinion Powers, the stress upon the several parts is in no way as great—and the liability of wear or breakage, from use or accident, is removed. The whole of the gearing consists of less than one seventh the number of cogs in the Rack and Pinion Power; and these are wholly removed from under the horses to the outside of the power—free from dirt, dust, &c., and always easily kept in order or cleaned, which is an advantage over all Rack and Pinion Powers.

This power has also the advantage of the changing of force and velocity to accommodate it to any variety of work, without any additional cost or danger to the gearing or other parts. When the main shaft runs but fifty six revolutions per minute, the diameters of the gears are such as to increase or decrease the velocity to two hundred and twenty-four, or as slow as fourteen revolutions per minute, when the animal, (either horses or oxen,) walk but two miles per hour—being about two thirds the travel which is necessary with the Rack and Pinion Power, to produce the same effect. This last fact is one of its principal features, and of the greatest importance to the farmer. The gearing, as well as pulleys and couplings, all agree, and can instantly be transposed—each to each, and side to side. In this power the centers of motion of the gears are always in the same position to each other—requiring no guard or binding truck over the chain above the pinions, to keep the gears together, as is absolutely necessary with all rack powers, and which serve to check the force of the power; and as the driving faces of the teeth on the rack become worn off, the loss of force increases, until they eventually stop, break, or slip by each other. The length of the sections or links of the chain, as also the width of the planks of the flooring, are the same as in the Improved Rack Power last described. With the above advantages, together with the epicycloidal form of teeth, adopted this season in its construction, the superiority of this power is readily seen.

This power is admirably adapted for driving Threshing Machines, Circular Saws, Cotton Gins, as also Machine Shops, Elevators, Ferry Boats, Discharging and Loading vessels, Pile driving, Cross cut sawing, Pumping, Grinding Grain, Churning Butter, Cutting Hay and Stalks, Shelling Corn, Grinding Apples, &c. The angle of elevation necessary to operate this power, is never greater, but often less than either of the others here described, and which is inside of one and a half inches to the foot, with horses weighing 1000 pounds each, and without any harness. It has also an admirable arrangement for adjusting and tightening the chain, not possessed by either of the others—together with an improved brake for stopping the whole instantly—all within the power and independent of the band and pulleys, and does not require to be changed, when gears and pulleys may be. The pulley used for threshing, with this power, is but three feet diameter, to effect the same as a four feet wheel with the rack and pinion Power.

In all cases the shafting of all machinery manufactured by us is made to run in Babbitted Boxes, they being the most durable and perfect box in use—and not generally used by other manufacturers. Albany, New York, April, 1852—3m

1,000 AGENTS WANTED.

THE life of Louis Kossuth, Governor of Hungary, with notices of the distinguished Men and Scenes of the Hungarian Revolution. To which is added an appendix, containing Kossuth's Address to the People of the United States; and the most important of the addresses, letters and speeches of the great Magyar Chief. By P. C. Ueadley, author of "Life of the Empress Josephine," "Life of Lafayette," etc., with an introduction by Horace Greeley. In one elegant 12 mo. volume of 461 pp., with an accurate steel Portrait. Price \$1.25.

The publishers confidently believe that from the abundant materials in the possession of the author, together with his well known ability, that his Biography of the Great Hungarian Chief will not only be complete in itself, but well worthy to be ranked with the other popular productions of his pen.

N. B.—Agents wanted in every county in the United States, (not already occupied,) to sell the above popular work. It is believed that almost every reading family will be glad of the opportunity of possessing the Life and Speeches of the noble Hungarian. Such is the present indication from the unparalleled sale of the work.

Address, DERBY & MILLER, Publishers of Popular Books, Auburn, N. Y.

March, 1852.

Seed and Agricultural Warehouse.

No. 29. Market Street, Phila.

WHERE the subscriber has opened an extensive assortment of GRASS AND GARDEN SEEDS, of his own raising, or recent importation, and warranted to be as represented.

He is, also, manufacturing all the most approved Agricultural Implements, among which he would call the attention of Farmers to a new article of Plow, of his own invention, called Cast-Steel, Extending Point, Self-Sharpening, Surface and Subsoil Plows, which for durability and ease of draft is yet unequalled.

The great advantages these Plows possess over all others, are their peculiar construction and the substitution of Cast-Steel in the place of Cast Iron, which only wants to be seen to be appreciated; all of which will be sold on the most reasonable prices by

May

C. B. ROGERS.

R. BUIST,

NURSERYMAN & SEED GROWER,

HAS always on hand at his seed Store, 97, Chesnut Street, Philadelphia, a large stock of Seeds of his own growth, a very important item to purchasers, as he is a practical grower, and has been engaged in his profession over 30 years. His nursery ground is amply stocked with Fruit, Shade and Ornamental Trees, accurately named and properly cultivated. Every article sold at the lowest rates, and warranted to be as represented.

Seed Store, 97 Chesnut Street, Philadelphia. Nurseries and Seed Farm, Darby Road, two miles below Gray's Ferry.

R. BUIST.

FRUIT AND ORNAMENTAL TREES, &C.

THE subscribers solicit attention to their immense stock of Nursery articles, comprising

Standard and Dwarf Fruit Trees, for the Orchard or Garden, strong healthy and beautiful trees, of all the best varieties in cultivation. Hardy Ornamental Trees and Shrubs, for parks, cemeteries, pleasure grounds, dooryards, &c.

Roses and Dahlias, Phloxes and Penies, one of the best collections in the United States comprising every novel and fine variety to be obtained in Europe, selected by us in person.

Green House and Bedding Plants, comprising the newest and best Fuchsias, Chrysanthemums, Verbenas, Petunias, and other popular plants for Green Houses, or for the Summer decoration of gardens.

New and Rare Evergreens, such as Deodar Cedar, Auricularia (Chili Pine), Cryptomeria, Pinus excelsa, &c., &c., the most complete collection. Besides all the common sorts in large quantities.

All orders executed and forwarded in strict compliance with directions and packing done in a style so perfect as to secure the safe transmission of articles to the most distant points.

A general descriptive catalogue will be forwarded gratis to all who apply post-paid and remit postage 5 cts. under 500 miles, 10 c. from 500 to 1000 miles.

A new catalogue of Dahlias, Fuchsias, Verbenas, Roses and Bedding Plants, for Spring of 1852, is just issued and will also be forwarded gratis.

ELLWANGER & BARRY.

March 1852:

JOURNAL OF THE FRANKLIN INSTITUTE,
of the State of Pennsylvania, for the promotion of the
Mechanic Arts.

THE oldest Mechanical Periodical extant in America, is published on the first of each month in the City of Philadelphia. It has been regularly issued for upwards of twenty-five years, and is carefully edited by a committee of scientific gentlemen appointed for the purpose, by the Franklin Institute.

The deservedly high reputation, both at home and abroad, which this Journal has acquired and sustained, has given it a circulation and exchange list of the best character, which enables the Committee on Publications to make the best selections from Foreign Journals, and to give circulation to original communications on mechanical and scientific subjects, and notices of new inventions; notices of all the Patents issued at the Patent Office, Washington City, are published in the Journal, together with a large amount of information on Mechanics, Chemistry, and Civil Engineering, derived from the latest and best authorities.

This Journal is published on the first of each month, each number containing at least seventy-two pages, and forms two volumes annually of about 432 pages each, illustrated with engravings on copper and on wood of those subjects which require them.

The subscription price is Five Dollars per annum, payable on the completion of the sixth number; and it will be forwarded free of postage when five dollars are remitted to the Actuary (postage paid) in advance for one year's subscription.

Communications and letters on business must be directed to "the Actuary of the Franklin Institute, Philadelphia, Pennsylvania," the postage paid.

August 1, 1851.

WM. HAMILTON,

Actuary, F. I.

HENRY L. TRIPLER,
(Successor to Joseph P. H. Coates.)
Dealer in Grass and Garden Seeds.
No. 49, Market Street, Philadelphia.

TO FARMERS, PLANTERS,

MARKET GARDENERS & OTHERS. PREPARED OR ARTIFICIAL

GUANO—Manufactured only by KENTISH & CO.
Depot No. 40, Peck Slip, New York.

THIS manure is so combined, that the Ammonia and other fertilizing gases are absorbed, fixed, and are given out to vegetation only as it requires them. No rot, mildew, worm, or other insect can approach it: an important consideration to farmers generally, but particularly in potato planting. It will be admirably adapted to the renovation, restoration and fertilizing of such lands as have been worn out.

It may be used broadcast, after the ground is ploughed, and then harrowed in with the seed. It is also valuable as a top dressing. Six acres per day can be thus manured in a day by one man.

It may be used with the greatest advantage on Corn, Potatoes, Wheat, Tobacco, Garden Vegetables, Rye, Oats, Green House Plants, Flowers, Vines, Wall Fruit, &c., and more than a thousand certificates from the most celebrated Farmers and Gardeners, can be shown, all testifying in the highest terms to its great value as a fertilizer. A pamphlet containing these certificates can be had, by applying to the manufacturers. THE PRICE IS ONLY ONE CENT PER POUND. It is put up in bbls. averaging 235 lbs., or in casks, from 1000, to 1400 lbs.

TERMS, Cash, or approved credit on delivery. Persons wishing to buy the article to sell again will be allowed a liberal commission. Address KENTISH & CO.
Aug. 1, 1851. No. 40, Peck Slip, New York

FARMERS PROTECT YOUR HOUSES & BARN.

So many accidents have happened from lightning during the past Summer, that every prudent and careful farmer should at once adopt such means as will be most effectual in preventing them. When it is remembered that certain safety may be secured at a very trifling expense, it becomes the duty of every farmer and good citizen to avail himself the proffered means. By so doing, he not only secures his property from fire by lightning, but protects also his family and those around him. These are important considerations and should have great weight. Those who desire a Lightning Rod, pronounced by the first Scientific men in our country, the very best in use, will find it on application to THE ARMSTRONG, at his Magnetic Lightning Rod Factory, Vine Street 3 doors above 12th, Philadelphia. These Rods are finished with the improvements at nearly the same prices as the old kind.

CUMBERLAND NURSERIES.

THE proprietor of the above establishment, in calling the attention of the public to his present stock of Fruit and Ornamental Trees, Shrubs, Plants, Vines, &c., would call especial attention to his extensive stock of well grown and beautiful Apple Trees, embracing a complete collection, collected from several hundred varieties under culture at these Nurseries, and such only reserved for general cultivation, as have been proven by actual test to be worth a place in the prudent man's orchard; yet for the curious, or those who wish to test for themselves, he is prepared to supply moderate quantities, nearly every variety enumerated in the catalogue.

In addition to the above, he has also a few hundred thousand extra large and fine Sweet Apple Trees, eight to twelve inches high, (for stock feeding,) which he will sell at from \$75 to \$85 per thousand, at the Nurseries, and no further charges for packing, simply to cover cost. These last are offered so unusually low on account of his wishing to clear a few acres of his ground this spring. All the above articles will be disposed of on the most liberal terms.

All orders, post-paid, enclosing the cash, or a satisfactory reference, will be punctually attended to, and all trees carefully labelled, packed, and forwarded to wherever ordered.

Address,

DAVID MILLER, Jr.

Cumberland Nurseries, Carlisle, Pa.

AGENCY

for the purchase and sale of improved breed
Animals.

STOCK Cattle of all the different breeds, sheep, swine, poultry, &c., purchased to order, and carefully shipped to any part of the United States, for which a moderate commission will be charged. The following are now on the list, and for sale, viz:

Thorough bred Short Horns and Grade Cattle.

do do Alderney do do

do do Ayrshire do do

do do Devons do do

do do South Down Sheep.

do do Oxfordshire do

do do Leicester do

Swine and Poultry of different breeds. All letters post paid and promptly attended to. Address AARON CLEMENT.
August 1, 1851. Cedar st., above 9th. Phila.

GUANO AND PLASTER.

THE subscribers offer for sale at the lowest market rates,
1000 Tons Dry Patagonia Guano,
500 " Government Peruvian Guano.
500 bbls. Ground Plaster.

The quality of the above is unsurpassed, and can be recommended with confidence to farmers and others in want of the article. A liberal deduction made to Country Merchants.

ALLEN & NEEDLES.
No. 22 & 23, S. Wharves, First Store above Ches. st., Phila.

FRUIT & ORNAMENTAL TREES, &C.

The subscribers solicit the attention of Nurserymen, Orchardists and Amateurs, to their present large and fine stock of Nursery Articles:

STANDARD FRUIT TREES, for Orchards; thrifty, well grown, and handsome, of all the best varieties.

DWARF TREES, for Gardens. The largest stock in the country, and the most complete.

DWARF PEAR TREES. Our collection consists of well known leading varieties, and numbers more than 150,000 saleable trees. The superiority of these, being grown in the country, over imported trees is well known to every intelligent cultivator. Nothing, in fact, in this country, can equal our collection of Pear Trees. They can be had from one to four years growth, some of which are now covered with fruit.

DWARF APPLE TREES. We cultivate in large quantities the best and handsomest varieties of apples on Doan and Paradise stocks for Dwarfs and Pyramids, and can furnish them in large quantities, from one to two years growth.

DWARF CHERRY TREES. All the leading varieties are cultivated on Mahaleb stocks, extensively. We can furnish by the hundred and thousand, from one to two years growth.

CHERRY CURRANT, the largest variety known. Upwards of 1,000 plants on hand.

ENGLISH GOOSEBERRIES, all the best sorts.

LARGE FRUITED MONTHLY RASPBERRY, that gives a crop of fine fruit in the autumn.

STRAWBERRIES, all the best sorts.

Ornamental Shade Trees, of good size, for streets, parks, &c., large and well grown.

Choice Trees and Shrubs, for lawns and pleasure grounds, including all the finest, new and rare articles recently introduced.

HARDY EVERGREEN TREES. Norway Spruce and Balsam Fir, of small size, in large quantities; and a moderate supply of large ones, besides nearly fifty new and rare Evergreens, including Deodar Cedar, Cedar of Lebanon, Chili Pine, Cryptomeria or Japan Cedar, Himalayan Spruce, &c., &c.

Roses, Peonies, a large and complete collection, including the finest varieties.

PILOXES. A collection of upwards of sixty varieties, including thirty new varieties imported last spring.

DAHLIAS. Upwards of 100 select varieties, including the finest English prize flowers of 1849 and 1850.

The following Catalogues, giving full information as regards terms, prices, &c., will be sent gratis to all who apply by post paid letters or at the office.

1st, a General Descriptive Catalogue.

2d, a Wholesale Catalogue.

3d, a Catalogue of Select Green House Plants.

4th, a Special Catalogue of Dahlias and Bedding Plants, for 1851.

ELLWANGER & BARRY,

Mount Hope and Garden Nurseries.

Sept. 1851.

Rochester, N. Y.

THE MODEL ARCHITECT,

A series of original designs for Cottages, Villas, Suburban Residences, Country Churches, School-Houses, &c., &c., by Samuel Sloan, Archt.

The above work is designed to meet the wishes not only of those directly interested in building, but of all those who desire the advancement of this noble art in our country, and wish to cultivate their taste and acquaintance with architecture. The handsome manner in which it is prepared and embellished, renders it a tasteful ornament for the drawing room, while its accurate delineations give it the highest practical value.

The projector will find in it every variety of style and design, accompanied, as mentioned below, by all minutia necessary to construction. By its aid he may build without danger of making those tedious and expensive mistakes which so often occur.

The operative artisan of every grade will find the work of inestimable value. It is a complete book of reference, and all plates are drawn to a scale with the utmost accuracy, so that he has only to study them with his rule and compass.

The work, in two volumes of twelve numbers each, to be issued monthly, until complete. Each number contains four Lithograph Engravings of original designs, varying in cost of erection from \$800 to \$14,000. There are also four sheets of details accompanying the designs, comprising ground plans, &c., &c. Besides this, each number contains eight pages of letter-press, descriptive of the designs, giving extended accounts of the various styles adopted, essays on warming, ventilation, &c., &c., elaborate specifications, estimates, tables, and in short every thing desirable, either for construction or for general information, in beautiful type; the whole being executed on the very finest paper, manufactured expressly for the work. PRICE 50 CENTS A NUMBER.

Persons forwarding a list of five subscribers accompanied with the cash, shall receive a sixth copy gratis. sept-ly

Address, post-paid, E. S. JONES & Co., Publishers,

S. W. cor. 4th and Race sts., Phila., Pa.

Persons forwarding a list of five subscribers accompanied with the cash, shall receive a sixth copy gratis.

Address, post-paid, E. S. JONES & Co., Publishers,

S. W. cor. 4th and Race sts., Phila., Pa.

Persons forwarding a list of five subscribers accompanied with the cash, shall receive a sixth copy gratis.

Address, post-paid, E. S. JONES & Co., Publishers,

S. W. cor. 4th and Race sts., Phila., Pa.

Persons forwarding a list of five subscribers accompanied with the cash, shall receive a sixth copy gratis.

Address, post-paid, E. S. JONES & Co., Publishers,

S. W. cor. 4th and Race sts., Phila., Pa.

Persons forwarding a list of five subscribers accompanied with the cash, shall receive a sixth copy gratis.

Address, post-paid, E. S. JONES & Co., Publishers,

S. W. cor. 4th and Race sts., Phila., Pa.

Persons forwarding a list of five subscribers accompanied with the cash, shall receive a sixth copy gratis.

Address, post-paid, E. S. JONES & Co., Publishers,

S. W. cor. 4th and Race sts., Phila., Pa.

Persons forwarding a list of five subscribers accompanied with the cash, shall receive a sixth copy gratis.

Address, post-paid, E. S. JONES & Co., Publishers,

S. W. cor. 4th and Race sts., Phila., Pa.

Persons forwarding a list of five subscribers accompanied with the cash, shall receive a sixth copy gratis.

Address, post-paid, E. S. JONES & Co., Publishers,

S. W. cor. 4th and Race sts., Phila., Pa.

Persons forwarding a list of five subscribers accompanied with the cash, shall receive a sixth copy gratis.

Address, post-paid, E. S. JONES & Co., Publishers,

S. W. cor. 4th and Race sts., Phila., Pa.

Persons forwarding a list of five subscribers accompanied with the cash, shall receive a sixth copy gratis.

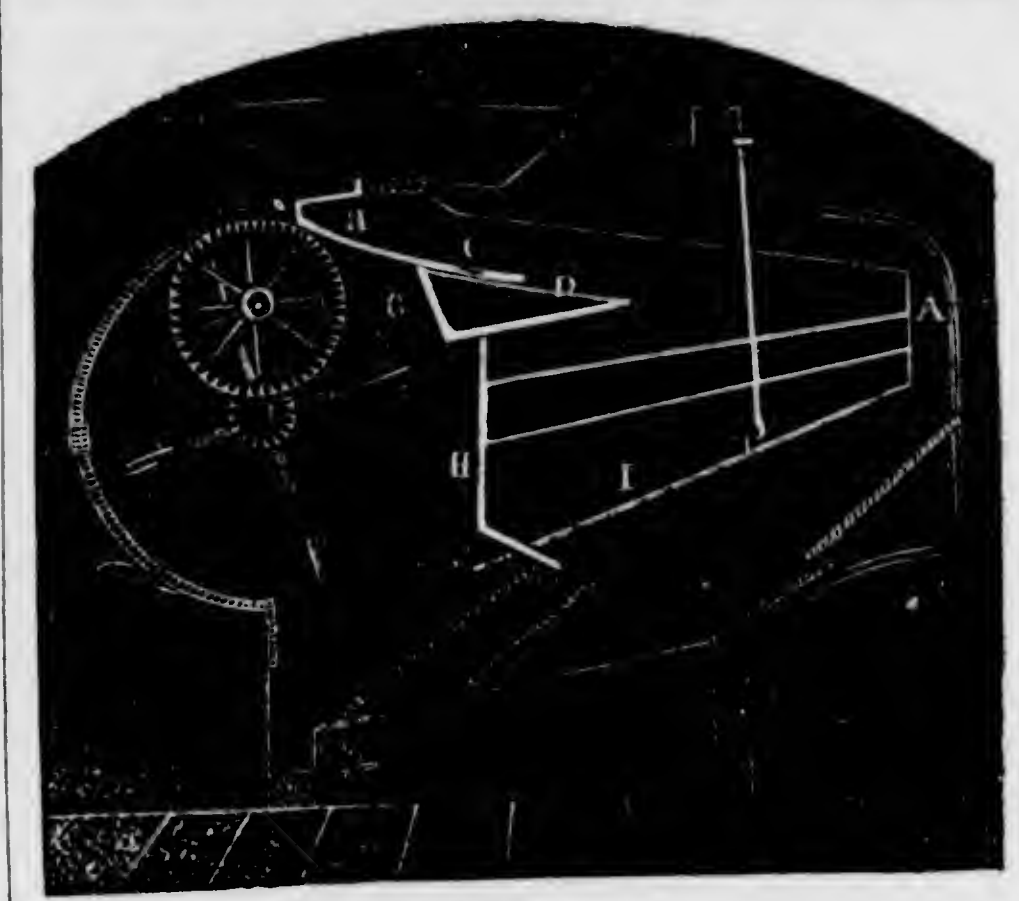
Address, post-paid, E. S. JONES & Co., Publishers,

S. W. cor. 4th and Race sts., Phila., Pa.

Persons forwarding a list of five subscribers accompanied with the cash, shall receive a sixth copy gratis.

Address, post-paid, E. S. JONES & Co., Publishers,

S. W. cor. 4th and Race sts., Phila., Pa.



MONTGOMERY'S

UNRIVALLED IMPROVED ROCKAWAY
SCREENER.

This celebrated FAN has been thoroughly tested and found to excel all others now in use for cleaning the different kinds of grain.

This improvement by Montgomery & Brother, consists in a double shoe—the larger shoe—A as commonly attached to winnowing machines, having grooves into which the screens, sieves or sieve boards are slid and rest.

B. The curved apron upon which the grain falls after passing through a hopper above.

C. The door which is made to extend across the curved apron B, and opening back on hinges towards the front end of shoe A, rests flat upon the front part of the apron B. The grain passes along the curved apron B and through the aperture of the door C and falls upon the screen D underneath. The apron is carried over the screen D on to the screen underneath, whilst the screenings pass through the screen D into the shoe G underneath, and are carried along the bottom of the shoe G to the centre, where spent H receives the screenings and carries them down behind into a box below the bottom of the shoe A. The grain is carried back on to the grain board underneath perfectly screened.

The persons who have already used these GRAIN FANS have not only spoken in flattering terms of them, but prefer them to all others they have used—and very many of the best Agriculturists have given their certificates that the fact of these machines screening the grain twice by one and the same operation is the very improvement they have long desired. Our farmers will now have the most perfect winnowing machine, which spreads the grain over the upper screen more perfectly than any others now in use. This improvement is so valuable as to have induced the inventors and manufacturers to make application for Letters Patent.

All orders for the machines will be promptly attended to by the undersigned. J. MONTGOMERY & BROTHER,
Sept. 1851. Lancaster city, Pa.

THE FRUIT-GROWER'S HAND-BOOK.

Encouraged by the very warm commendations of this work, received alike from experienced Horticulturists and from the wholly inexperienced, the author ventures with some confidence to submit it to the public at large.

Notes of all the important questions on fruit culture asked of the writer during the last ten years, with a thorough research of Homological works, have contributed to render this volume as complete as possible, in convenient compass.

To the lot-holder who wishes to make the most of a few plants and little room, as well as to the extensive planter who wishes to arrange and cultivate his gardens in the most economical and profitable manner, the Hand Book will be found a useful companion for frequent reference.

Price, FIFTY CENTS. Two copies, post free, for \$1.

Address,

WM. G. WARING,

sept. 1851.

Boalsburg, Centre co., Pa.

DOUBLE-ACTING, LIFT AND FORCE PUMPS.

The subscriber manufactures Double-acting Lift and Force Pumps, of all sizes, for

Factories,	Mines,	Railway Water Stations,
Breweries,	Steamboats,	Steamships,
Tan Works,	Ships,	Water Boats,
Hot Liquids,	Family Purposes, &c.	

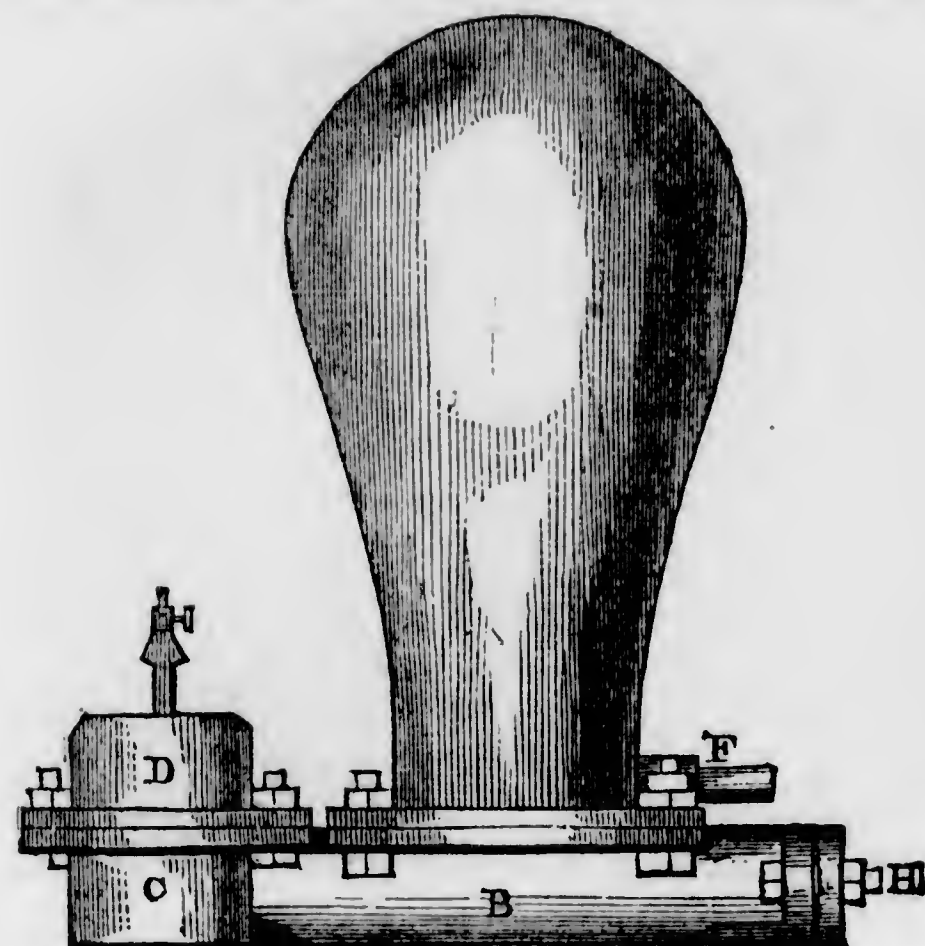
VILLAGE AND FACTORY FIRE ENGINES.

Garden Engines, Cistern Pumps, Well Pumps, for any depth required, Hons Couplings, Copper Rivetted Hose of all sizes, Ornamental Cast-iron Fountains, &c.

Purchasers are respectfully invited to call.

Any communications by mail will have immediate attention.

G. B. FARNAM, 34 Cliff st., near Fulton, N. Y.



A. an air chamber—B. body of ram—C. valve chambers—D. valve—F. coupling for delivery pipe—H. coupling for driving pipe.

J. B. CHICHESTER,

NO. 23, SOUTH EIGHTH STREET, PHILADELPHIA.
AGENT for Birkinbines Patent Improved Hydraulic Ram, Force Pumps, Street Stops, Fire Plugs, and Hydraulic Machinery in general.

The superiority of these Rams over all others is the great amount of water thrown to that wasted, the large size they can be constructed, the durability of them, as well as the small amount of attention and repairs they require—many running at present for 4 and 5 years, without any repair. At the present time there are in the United States, Cuba, Mexico and South America, about 2000 in successful operation.

The town of Naples in the State of New York is supplied with water by one of these Rams, throwing 20,000 gallons a day. Many more could be mentioned if space would permit.

Persons wishing Rams sent to them by measuring the amount of water their brook or spring affords, per minute, the head and fall they can procure, the elevation to be overcome, and distance to be conveyed, can have the proper Ram and Pipe sent them, with directions for putting up.

The expense, in most cases, is smaller than a well and pump.—Letters post-paid, will meet with prompt attention. When desired an experienced person will be sent to put them at a small additional expense. Lead and Iron Pipe for sale. These Rams are warranted in every respect.

(Jan. 1852.)

FRUIT AND ORNAMENTAL TREES FOR SALE.

50,000 Peach Trees of one and two years growth, from the bud; 40,000 Apples; 5,000 Cherries; 5,000 Dwarf Pears, each containing all the most esteemed varieties, and of large size. Also, Quinces, Plums, Nectarines, Apricots, Almonds, Grapes, Raspberries, Gooseberries, Currants, Strawberries, &c., &c. 50,000 Silver and Ash-leaved Maple Seedlings of one years growth; 50,000 Apple Seedlings. The above will be sold on the most reasonable terms. Persons residing at the south and west should send their orders early. Catalogues with prices annexed will be sent to all applicants.

ISAAC PULLEN,
February, 1852—2 mos.) Hightstown, Mercer Co. N. Jersey.

COTTAGE FURNITURE.

WARWICK & Co., are constantly manufacturing new and appropriate designs of enamelled, painted and Cottage Furniture, of warranted materials and workmanship. Suits of Chamber Furniture consisting of DRESSING BUREAU, BEDSTEAD, WASH-STAND, TOILET TABLE, and FOUR CANE SEAT CHAIRS, as low as \$30 per suit, and upward to \$100, gotten up in the most superb style.

Those who are about furnishing hotels, cottages, or city, residences, should call and see this style of furniture, which for cheapness, durability and elegance is far preferable to the old heavy kinds of mahogany, &c.

Orders from all parts of the country promptly attended to and carefully packed.
WARWICK & CO.,
Warerooms, No. 4 and 6, South Seventh st., between Chestnut & Market streets, Philadelphia. sept-6m

HENRY A. DREER'S

SEED AND HORTICULTURAL WAREHOUSE,

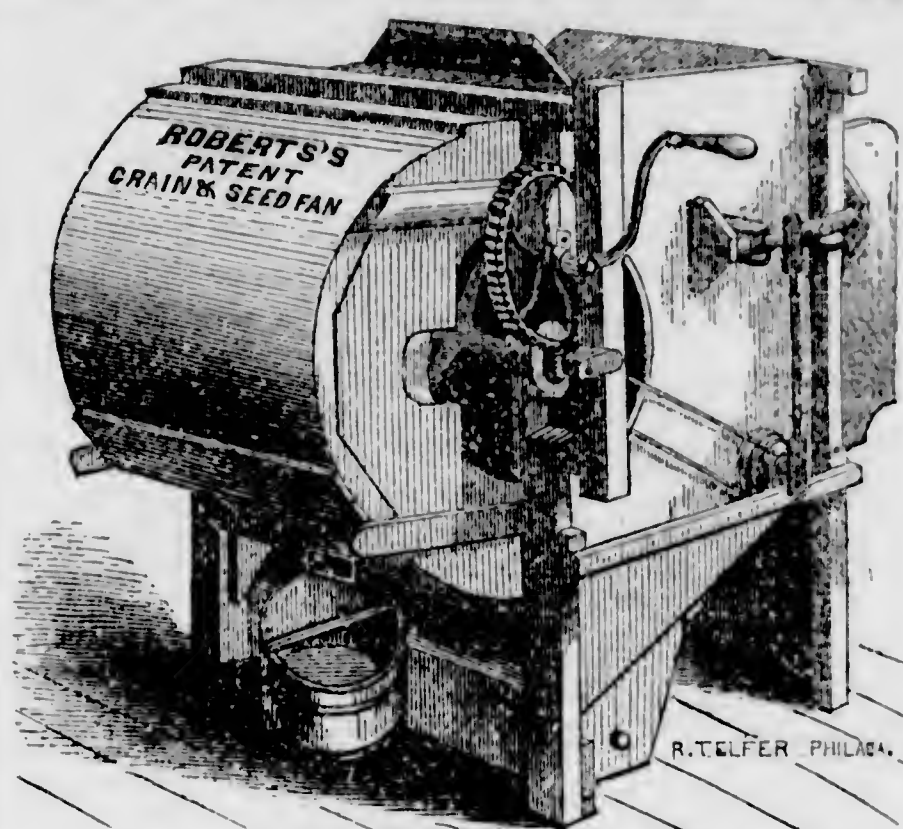
No. 59, Chestnut st., near 3d, Philadelphia.

Constantly on hand a large and well selected assortment of Gardens, Field, Grass and Garden Seeds, Fruit Trees, Grape Vines, Roses, &c.

Horticultural Implements in great variety.

Catalogues forwarded on post paid application.

(sep.-4t)



IMPORTANT TO FARMERS!

JESSE ROBERT'S PATENT UNITED STATES
GRAIN AND SEED FAN.

TO WHICH WAS AWARDED THE
FIRST PREMIUM

At the Pennsylvania Agricultural Fair, after a trial the fairness of which could not be disputed. These Fans, the inventor confidently asserts, are the only ones now in use entirely adequate to the wants of the farmer. The object of the inventor was not directed alone, to the purpose of cleaning grain, but of cleaning it and saving at the same time the farmer the trouble of gathering it from the floor, thus not only avoiding labor, but keeping the grain from the dirt on the floor. In addition to this, these Fans, possess greater advantages than those constructed upon the old plan.—These advantages are as follows:

First. The arrangement is such, that a quick shake can be obtained by turning slowly, thus securing when desired, a less quantity of for small seeds.

Second. When necessary a slow shake can be secured, by rapid turning. This is of immense advantage, as it adapts the fan, to the cleaning of all kinds of seeds.

Third. A new method of adjusting the riddles and screws. This gives the operator the advantage of placing them in any position best adapted to accomplish the purposes of a grain Fan. Every riddle and screen has a separate adjustment, so that each one can be fixed at any angle without the necessity of taking them out.

Fourth. The grain, instead of falling on the floor, as is usually the case, is discharged, by means of a small trough, into the half bushel, or other measure that may be placed under it. By this arrangement the grain is all measured, by the time it is cleaned, thus saving not only labor, but time, and consequently expense, as well as keeping the grain from contact with the dust and dirt on floor. For this reason, the fan, can be put in operation anywhere, with as little trouble as the common fans can be used in a barn floor.

Fifth. The simplicity of their constructions renders them less liable to get out of repair than other mills.

For the above reasons, we confidently recommend our Fans to public patronage. Privileges to manufacture will be granted on reasonable terms. Satisfactory information can be promptly had by addressing post paid, the subscriber at Norristown, Montgomery Co., Pa.

JESSE ROBERTS.
Norristown, December, 1, 1851.

Life Insurance for Horses, &c.

THE American Live Stock Insurance Company, (Stockholders individually Liable) for the Insurance of Horses, Mules, Pigs, Bulls, Sheep, Cattle, &c., against Fire, Water, Accidents and Disease. Also, upon Stock driven to Eastern markets, or transported South.

JOHN H. FRICK.

General Agent for Pennsylvania, Philadelphia.

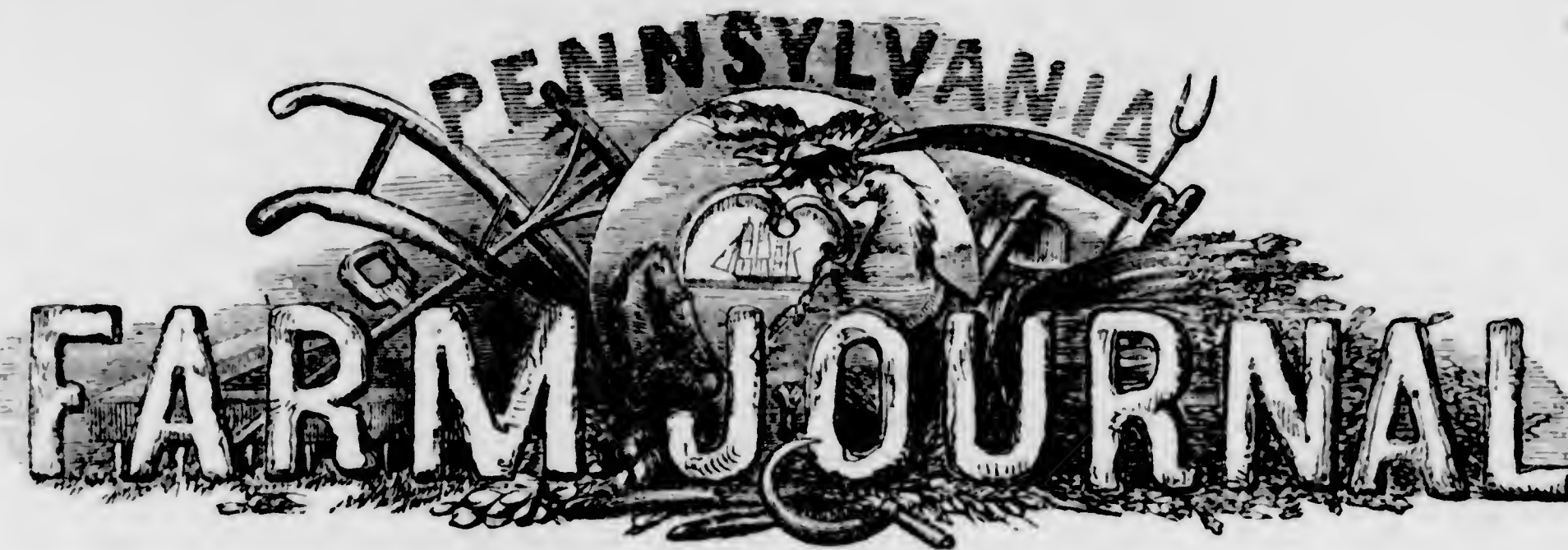
REFERENCES:

Wood, Abbott & Co.,
Truitt, Brother & Co.,
Coates & Brown, } Philadelphia.

Agents:

JOHN ZIMMERMAN, Lancaster Pa.
CHARLES F. FRICK, Reading, Pa.
SAMUEL H. TAYLOR, Mauch Chunk, Pa.
Dr. JOHN G. SCOVERS, Veterinary Surgeon,
Examiner for Lancaster County.
May, 1851.)

BERKSHIRE PIGS and South Down Sheep of Pure Blood, for sale by
JAS. THORNTON, Jr.,
July 1-6m. Byberry, Philadelphia Co.



VOL. 2.

LANCASTER, PA., MAY, 1852.

NO. 2.

THE FARM JOURNAL.

S. S. HALDEMAN, } EDITORS.
A. M. SPANGLER, }

Disparagement of the Farming profession.

A very common and most pernicious error which prevails to a considerable extent in nearly every portion of the community is, that farming is the simplest of all arts, requiring nothing more than mere physical strength to manage it in all its details.—The idea that mental exertion is in any degree requisite, is wholly lost sight of. Many believe that when a man, endowed with good stout limbs, and a strong constitution, has proven himself mentally unfit for other pursuits, that he is just the person to make an excellent farmer. Farmers themselves frequently entertain the same opinion; especially those who cling so tenaciously to the "good old way" and reject the advantages of which science so earnestly invites them to avail themselves. Now this is all error—hurtful error—and the sooner it is banished, the sooner shall we find husbandry assuming its rightful position. So long as men are led to rank agriculture as a calling fitted only to broad shoulders and empty minds—just so long will the pursuits of the farmer be lowered in the estimation of the other professions.

But why should this be so? What single argument can be advanced in favor of such an absurd opinion, and what possible excuse can be offered in extenuation, by those farmers who thus disparage the high character of their profession? If there be any one pursuit in life more closely allied to science than all others; that pursuit is agriculture. Science is made to play a part in the daily operations of the farm. Geology and mineralogy explain to the farmer the formation of the earth's crust—the character and quality of the rocks and soils which compose it, and the various properties and uses of the minerals hidden beneath it. Chemistry, his bountiful mistress extends to him her fostering care. She teaches him

VOL II—B

to analyse his soils as well as his plants, and understanding the constituents of each enables him to adapt the one to the other, and thus produce the most successful results. She analyses the food he prepares for his stock, and with the unerring certainty of science points out the properties and value of the different kinds of grain, roots, &c., so that he clearly understands what kinds possess fattening qualities, what muscle forming, and what supply and strengthen the bones.

We might thus refer to every department of science—to mineralogy, botany, natural philosophy, &c.—and show the intimate relationship that holds between them and agriculture; but enough has been said to disprove the disparaging assertions already alluded to. From the most trifling operation on the farm, to the minutest analysis of soils and plants, science is the ready and willing handmaid of the farmer. The simple truths every day presented to his observation, (simple, however, only when practically demonstrated,) are the brilliant results of persevering research of men of the most exalted genius. How few there are, who appreciate the wasting toil and energy that were required to develop and demonstrate these apparently trifling yet all important truths.

And yet, in the face of all these facts, men will tell us that physical strength is the only essential requisite for the farmer and what is worse still, many farmers themselves, if not by their words, sanction by their actions, this slander. If a son gives evidence of an intellect a little superior to that of his sire, the farm becomes too limited a field for his genius, and agriculture too insignificant a profession for his transcendent powers. The lawyer, the divine, or the physician's office is considered his legitimate sphere, and the youth who might become an excellent farmer, ends his career as a second or third rate lawyer, preacher, or doctor. When shall there be an end of this? and when will the science of farming be esteemed as it should be? We answer, when the spirit of progress shall have penetrated to every farm-

house—when the sons of our farmers shall be taught to respect and reverence the profession of their fathers—when they shall learn to know and feel that education will supply that skill, and that interest, which will render farming as lucrative and honorable as any other pursuit. It will end when the thousands of American farmers who are possessed of the means, will venture beyond the beaten track of their ancestors—explore the hidden mysteries of nature—examine and understand her various processes, and thus fit themselves to till the earth more successfully—when every blade of grass, every leaf and plant and vegetable, will possess for them an interest sufficient to lead them to investigate its character, and understand the broad principles upon which its germination, development and maturity depend. It will end when every tiller of the soil learns to regard his own profession as one of the most honorable, ennobling and scientific of human pursuits—when *mental* as well as physical energy will be deemed absolutely essential to successful husbandry, and when the idea that men who are unfit for every other pursuit, will make good farmers, shall be fully exploded.

Benefits of Green Manuring, &c.

In the May number of our first volume, page 41, will be found an article on "*Experimental Farming*," communicated by Wm. Stavelly, Esq., of Bucks co. In that article Mr. S. stated the fact of his having *plowed down green corn*, some of which had attained the height of ten feet; and from a portion of which, ears of corn suitable for table purposes had been gathered. The experiment was one of such an unusual character, so far as the size of the corn was concerned, that many doubted, not only the practicability of plowing under corn ten feet in height, but the possibility of any good resulting from it. From the following, it will however be seen that Mr. Stavelly has not only shown the practicability of plowing the corn under, but the advantages which he derived from such a course.

The field on which the experiment was tried, contained 47 acres, ten of which were green manured with corn. On these ten acres "not a fork-full of other manure" was applied, while to the remaining 37 acres, manure had been freely given. The result was, that the average yield of the ten acres was fully equal to that of the remaining thirty seven, and the average of the whole field was a little over *thirty-four bushels to the acre, or sixteen hundred and six bushels and nine pounds*, on the whole 47 acres.

Now when it is remembered that Mr. S's. farm, at the time he took possession of it a few years since, was in a poor state of cultivation, (it having been a rental farm for ten years previously) the result is pregnant with importance to the agricultural interest. It proves conclusively, (if proof were needed) that

by a judicious system of green manuring, most soils, especially waste lands, may be brought to a fair degree of fertility.

Mr. Stavelly has succeeded equally well with his other crops. Some corn, the product of his farm, was exhibited at the State fair at Harrisburg last fall, which was certainly as fine as any we have ever seen. The ears averaged in length fourteen inches, and were remarkably well filled. Mr. S. informed us that notwithstanding the excessive drouth of last season, the average yield per acre was *fifty bushels*, and we have reason to know that the corn on exhibition would have received a premium but for the fact that the mode of entering it for competition, to entitle it to a premium, was overlooked. It was a mixture of the gourd seed and flint varieties.

In advertent to the excellent yields of wheat and corn upon Mr. Stavelly's farm, we earnestly commend his example to those of our readers who are longing for a home in the west. There are thousands upon thousands of acres in Pennsylvania, in a condition similar to that of Mr. S's. farm when he took charge of it—lands, which, originally fertile, have been reduced by the skinning system, (so prevalent with a certain class of our farmers,) almost to exhaustion; and which by the same judicious system of cultivation as that pursued by Mr. S. might again be brought to a remunerative degree of fertility. If a more methodical system of farming prevailed in our State—a system based upon truthful principles, and generally adopted—not only would husbandry become more profitable, but those who pursue it would derive from it such delight and satisfaction as the negligent, hap-hazard tiller of the soil can never know.

For the Farm Journal.

Cultivation of Swede Turnips.

MR. EDITOR: In yours of the 15th, you ask how we cultivate Turnips. As we are now going through the preparation of the soil; it can readily be done. We have just finished sowing a three acre lot of Swede Turnip after a crop of early seed Peas; the ground was first all plowed 7 inches deep, then harrowed, rolled and harrowed; afterwards cross ploughed-harrowed and rolled. The ground was then drilled up 27 inches wide, and manure spread in the drills at the rate of 15 to 20 cords per acre. We then split the drills covering up the manure, rolled down the ridges and with the seed-barrow sowed the whole,—a few drills put in with Guano at the rate of three cwt per acre by way of experiment.

After cultured, as soon as the plants have shown their third rough leaf, we then thin to four inches apart, hand hoe the edges of the drills, and hoe-harrow between them which we very frequently repeat till the crop covers the whole ground. At the second hoeing, we thin the roots to 8 inches apart. The weight of crop far surpasses those cultivated in the ordinary way. We consider Rutabaga or Swede Turnips an indispensable crop; feeding it from January to April to the whole of our stock. The Red top and White Dutch Turnips we cultivate in the same way: sowing the rows about 22 inches apart and using from 12 to 15 cords of manure per acre. The crop is generally put in from the 12th to the 20th of August. The above culture leaves the ground in beautiful order and perfectly clean. One acre well cultivated will produce a greater amount than two managed in the usual way and not require half the labour to handle and feed them. Yours truly, R. Buist.

Rosedale, July, 1851.

Communications.

For the Farm Journal.

The Value of Agricultural Journals.

MR. EDITOR:—The communication of JUDGE WATTS in your February number suggests the fact that intelligent gentlemen are much less likely to be led away from judicious farming by unsound speculation, than are those whose want of mental discipline seems likely to cause them instantly to embrace as positive truth what may be only a plausible suggestion of sequences dignified by the name of theory. How continuously accounted for, are doubtful facts, by what is called "*my theory on this subject*"—and with what wonderful violation of logic, and senseless confusion of consequences from effects unknown or never existing, do many of those who call themselves "*plain, practical farmers*," discuss the several subjects connected with their pursuits. In truth, your "*plain*" farmers are often so highly ornamented, that the tinsel of their talk obscures its sense, and the "*practical*" man the moment he leaves the plough involves you in the obscurity of incomprehensible and interminable theory. With singular inconsistency these are the men who denounce "*book farming*" and refuse to take the Farm Journal? I agree with the accomplished President of our State society, that it is a good rule to doubt all dogmas, and that the theory for which no good reason is assigned, should not be received. This however is not the rule with the ignorant. Discarding the modern system which is based on facts, and has led to all the great scientific discoveries of late years, they are genuine scholars and follow, in their rude way, the baseless mode of argumentation which rested on conceits called axioms, or assertions termed propositions, and led to results, some of which were ludicrous because ridiculous, and all were useless because uncertain. Truth alone is of real utility, and facts of observation can alone safely guide us to truth of conclusion. A single new and well ascertained fact connected with husbandry, is worth more to the husbandman, than all the speculations of all the philosophy from Aristotle to — one of our own "*plain, practical farmers*;" to whose notions we have so often listened with curiously impressed mind and ear as we sat on a log by his side, resting in the sweet shelter of our wood on a hot summer day, from the pleasant toils of the adjoining field.

Take up any work on Agriculture, and of what do you find it chiefly composed? Of *facts* relating to the subject? No man in the longest life and with the most extensive experience could himself accumulate so large a mass of practical matter as is contained in the meanest of these treatises. It is singular indeed that the circumscribed experience of a single person should be considered more valuable than the extensive observations of many. But this is so much the case, that to find anything about farming in a book, is to insure with many, its instant condemnation.—

The very persons who thus reject what is written, do not hesitate to base nearly all their operations on the suggestions of their acquaintances, or the traditions of the neighborhood; for indeed, a very small portion of any man's conduct, in any of the affairs of life, is the result of his own unaided judgment. It is true, that to apply indiscriminately all the recommendations of the books would be most injurious; because, allowance must be made for a variety of circumstances which may modify the results. And special caution must be used with our American works; not only because of the vast variety of soil, climate, demand, wages, &c., of this country, but because much of their matter is copied from English works, where all these circumstances differ from ours.

The most valuable American agricultural literature is to be found in the periodicals. Indeed from them is taken what is of best authority in the treatises.—Neither the New York, Maryland or Ohio periodicals, whether we refer to discussion or fact, are so useful to us as our own will be, if properly conducted. And this depends not so much on the Editor as on the contributors; for they must supply, to a great extent, the matter which the good sense and sound discretion of the Editor will place, with such selection and arrangement as may be necessary, before the reader. In this view we may make the Journal the means of combining for the benefit of all, what each finds most valuable. Our interest, not less than our honor is concerned in placing the Farm Journal in the permanent and prosperous position which will secure this end.

You asked me, Mr. Editor, to write an article.—Unable to comply with your wishes in the half hour at my disposal, I have endeavored to induce others more competent from leisure and knowledge, to do so. If one of your readers has ascertained a fact not generally known, let him put it in plain words and send it to the Journal, and these hasty lines will not have been useless.

Yours truly,

WILL. A. STOKES.

Ludwick, near Greensburg, April 3, 1852.

For the Farm Journal.

The use of Tanners bark in Agriculture and Horticulture.

MR. EDITOR: Almost every year, petitions are presented to our Legislature, praying that Tanners may be prohibited from throwing their "*spent bark*" into the various creeks throughout the State. It is a well known fact, that the disposition of this material has always been a source of trouble and considerable expense, especially where tanning is carried on upon a large scale; and wherever a stream of water affords the opportunity, load after load of it is carted to the banks, to be carried away by the first freshet. Some tanners permit it to accumulate from year to year, until absolute necessity compels them to haul it upon the roads and lanes in the vicinity; or dis-

pose of it by the slow process of burning. Without pretending to much scientific knowledge, it appears to me that to cast spent tan bark into our creeks and rivers, is to be condemned not only on account of the filling up of mill dams &c., but as a downright waste of what, (with a little care and patience) may be made a valuable fertilizer.

Being slow of decomposition its effects when applied to the soil in the form in which it comes from the tannery, if not positively prejudicial, are so long in manifesting themselves, that few persons are willing to risk the one, or wait for the effects of the other. Having once had life—it being the product of vegetable matter, it is reasonable to suppose that if properly decomposed, it will furnish food for vegetation. Such at least has been the result of my experience with it. The immense quantities of tanners bark annually wasted for want of a proper knowledge of its true value, induces me to present to your readers my plan of rendering it available as a fertilizer.

Having some years since received permission to take as much as I desired of spent bark from a neighboring tannery, I set my men to work, with carts, and hauled several hundred loads, which I composted in the following manner. First a bed of tan about two feet thick, over which I spread a heavy coating of lime, covering the lime with a layer of very wet barnyard manure, to a depth of five or six inches; then another layer of tan, followed by the lime and manure, and capping the whole heap with another layer of tan. This was in February—the season being a mild one. In the month of October following, I cut the whole heap down with spades, applying another dressing of lime as the work progressed. I found that the tan was decomposing as rapidly as I could have expected, and that the compost looked well. It was then permitted to remain untouched until a year from the following Spring, when part of it was applied to a field which I intended for corn, at the rate of about twenty large cart loads to the acre. The result was as fine a crop as I ever had, although no other manure had been applied, either in connection with the tan, or for two years previously.

The balance was drawn on to a field which I put in wheat, and here the result was as gratifying as in the case of the corn. The crop was heavy, yielding more than thirty bushels to the acre of as well filled wheat as any farmer could desire.

Within a few years its value as a top dressing for strawberries and raspberries has begun to be properly appreciated. Nothing better can be applied to strawberry beds in the fall, than a good top dressing of well rotted manure, followed by a coating of tan fresh from the tan yard, (if need be,) sufficiently thick to cover the plants, all but the top or crown.—Raspberries glory in tan—it appears to be the very food they need: and if supplied to them in sufficient

quantities, the result will be, flourishing and fruitful plants. Apply it in the fall; and in the spring “spare not your hand,” as it is plentiful and may be had for the hauling.

E. S. P.

Cumberland county, Pa., April, 1852.

[Last season we experimented, to a small extent, with tan in the cultivation of celery. In digging our trenches, we ordered one to be dug three feet deep, causing the sub-soil to be thrown to one side and its place, (to a depth of two feet) supplied by tan, partially decomposed. Over this was spread the surface soil to a depth of six inches. The celery was planted in the same manner as in the other trenches. During the early part of the season there was no perceptible difference between the growth of the celery in the trench to which the tan was applied, and those to which it was not. But as the season advanced, and the almost unprecedented drouth cast a withering influence upon all vegetation, that in the former, grew vigorously—retained a fine, healthy deep green color, and produced an excellent crop; while in the latter, although water was applied as freely as to the other, and the treatment similar in every other respect, it was almost an entire failure. Whether the tan possesses fertilizing qualities adapted to the growth of celery, or whether its merits in this case consisted merely in supplying moisture, so essential to its growth, we are not prepared to say. We record the experiment for the benefit of those who may feel disposed to pursue the investigation further.—Ed.]

For the Farm Journal.

Planetary Influence.

“Can any one explode a science without first learning it?”

MR. EDITOR: I do not pretend to be at all versed in lunar influences—having never made the “signs” subservient to my farming operations, preferring to do all things at the proper time—and trust to Providence and the seasons for a return. Yet, as I have occasionally met with results that would seem to favor the popular belief in planetary influence, I hope that a crude article on the subject will not retard the “onward march of truth and knowledge;” but rather cause closer inquiry into the hidden mysteries of nature, thereby enabling those having the knowledge, to explode those “fallacies,” if such they be. It would be well, however, for persons who undertake to ridicule the opinions of others less enlightened than themselves, to first *prove all things*, and hold fast that which is good. It is most unreasonable for persons to scoff at the belief in effects, resulting from causes which they are unable to fathom or comprehend. Or, we might ask, are they so learned and wise as to believe that nothing more remains to be discovered? Is it not because planetary influence on mundane affairs is advocated and believed mainly by the illiterate, and not taught in the schools—that

they deride and ridicule it as prejudice, popular delusions, humbug, &c., &c.

I propose to give you a few facts, Mr. Editor, which have fallen under my own observation, and offer some explanatory remarks in relation to lunar influence.

Some twenty-five years since, just as I was about finishing the planting of a field of corn, a neighbor passing by, told me I would have a short crop of corn that year. I enquired his reasons for so singular an expression, as the field was in good order, and the corn planted, as I thought, at a favorable time. After considerable palaver he told me “the moon was in the wrong sign.” I could not do otherwise than “make a note of it.” The field produced over eighty bushels of shelled corn to the acre, with rather a dry season. In this instance, the influence of the moon must have been overpowered by other influences.

On another occasion, I had two post-and-rail fences set contiguous, on each side of a lane, about twelve feet apart. As it happened, the one was set when the sign was down, and the other when the sign was up. The result of this experiment was; that in less than a year the bottom rails of the first fence settled down in the ground, while the other is full four inches above ground at this day—now twelve or fifteen years since.

Again, a neighbor of mine (curious in such matters) had some black-oak trees split into rails during the ruling of a particular “sign”—these rails he used for post fence. After standing twenty years, the fence was removed, and the rails were then sound and hard as a bone. Ordinarily, black-oak rails rot in ten or twelve years.

I will not at present advert to the “dinner in the pot” further than to note a remark which I have often heard made in relation to butchers meat, and which any person may have noticed—that, sometimes during the process of boiling, the meat remains plump, covering the bones entirely when brought to the table; while at other times, it shrinks away, and the bones can be seen protruding out from the meat.

The southings of the moon is another “sign” that may be made a note of by any stickler against “moonology.” When the new moon stands for south, warm weather may be anticipated, particularly when she is still tending south,—and when far north, cold. This is a sure guide as relates to warm or cold weather. Also, when fruit trees come into full flower during the *wane of the moon*—little fruit will be the result that year.

Unfortunately, most of those who are so ready to prognosticate changes of weather, at the change of the moon—or who confidently assert that certain “signs” will produce certain results on vegetation consequent on the passage of the moon through a particular sign of the zodiac—do not know the vari-

ous counter effects produced by other influences, and merely utter their predictions, because others before them are the same.

Now it is not alone the moon in her passage thro’ the signs, or at her changes that is to be regarded as producing changes in the weather, &c.; but the sun, the planets, all have their share in these influences—being posited in the different signs—being direct or retrograde, casting their aspects in varied directions; this constant change of the planets, creates a corresponding change in the influences exerted on our planet, and who is capable of foretelling the constant and ever varying results?

The skeptic, who is undoubtedly quite as much in the dark as the most illiterate “moon gazer;” finding the prediction of his ignorant informer fail, at once jumps at conclusions, and decries the whole as “moonshine,” for, says he, the laws of nature are immutable, “imperative” and there should be no failure. Let the reader be the judge whether error or ignorance is the greater enemy to truth and knowledge.

The inspired writer informs us, that God said, “let there be lights in the firmament of the heavens to divide the day from the night, and let them be for signs and for seasons, for days and years.”

The believer in planetary influence, knowing that the sun and moon exercise such a powerful influence on the ocean, is naturally led to believe that the atmosphere must in like manner be acted upon, as the medium through which this influence is exerted on the ocean—and as science informs us, there are also atmospheric tides,—by a parity of reasoning, they therefore conclude that, it being admitted by science, that the planets are capable of exerting so great an influence upon the waters of the ocean, and upon the atmosphere; is it not reasonable to suppose, that mundane affairs generally are in like manner subject to their influence? The air is breathed by all animate beings, and acts upon all substances, and this air is constantly being acted upon by the planets. But says the skeptic, the sun and moon attract the waters of the Ocean by a great natural law, called gravitation, and can have no effect on the weather. Well “what’s in a name;” suppose we call this planetary influence, gravitation, and what then? Why simply that your plants can not vegetate without this medium, air and water; and your “crout and bacon in the pot” will require the same medium, to become at all palatable! Even your shingles on the roof are constantly exposed to its influence, and the weather which your learned ones tell you is “solely regulated by temperature over which the moon has no control,” is, and must be, influenced by this all pervading agent. Now this is a most singular admission by the opponents of planetary influence, as if temperature were a thing separate and distinct from stellar influence; for be it remembered, we do not pretend to say

by any means, that the moon, a mere satellite, produces all these changes of the elements, but that all the plants act their part. Why is it that among the whole human race no two individuals can be found the counterpart of each other, precisely alike in form, features, disposition, &c. "Man was formed in the image of his maker," and the whole human family cast in one mould as it were, and yet no two individuals ever existed who were alike in every particular. May not the ever changing aspects of the planets have some rule or influence even in this matter?

A few remarks in relation to your correspondent in the January No., will close this article.

He must certainly have forgotten a portion of his astronomical education, or he could not have made so singular a remark as "that if a certain quarter" of the moon "should produce rain, &c." and ask, "why does not one sort of weather pervade the whole earth, at the same time?" for, he continues, "at the same instant, a sign of the moon will prevail equally in Terra del Fuego, and in Kamschatka, in Greenland and in Borneo." Now the little knowledge I have of astronomy, informs me that the planets, the signs, and consequently the aspects, are *progressive*, varying, changing every moment. How then could the same sign prevail at opposite extremities of the earth at the same instant of time?

When I had written thus far, your March No. made its appearance, and I was pleased to see, that so able a writer as L. J. P. has entered the lists in defence of the truth. I therefore close for the present.

Respectfully,

J. B. GARBER.

Floral Retreat, March, 1852.

For the Farm Journal.

Lunar Influence.

MR. EDITOR:—A fair correspondent in your No. for March, in reply to "Franklin," has, I humbly believe, (not intentionally,) taken hold of the wrong end of the "stocking; (the figure is her own,) and, consequently, failed to unravel the mystery of lunar influence. Without attempting to follow the thread of her discourse through all its devious windings, I purpose only to touch on one or two points:

First—"Every observer and gardener knows, that some vegetables do grow faster when the moon is near the full, than when she gives little or no reflected light." From subsequent remarks, I am led to believe she thinks this to be the case. The lady, I suppose, is aware, that plants will not thrive in the dark, that light is as essential to their growth as heat, moisture or air—therefore, if plants do really grow *faster* about the full of the moon, it is because they are exposed to more light in a given time, than at any other period; and not to any fertilizing property communicated to them by the atmosphere, derived from the moon. This is the opinion of one ob-

servant gardener, at least, whatever others may believe.

The second point in her argument I intend to notice, is LUNACY, so called. This, I do the more reluctantly, because your correspondent has said, "I therefore, at the risk of being classed with the unfortunates referred to above, assert my earnest faith in the venerable doctrine of lunar influence." Now, sir, I maintain that no effect which solely rests on faith, for its cause, without positive evidence ought to be believed by any rational being, especially when the true cause has been found out by clear investigation and actual experiment, as in the present case.

Without entering into the pathological character of mental alienation, and the various opinions of ancient and modern writers on the subject, allow me to inform L. J. P. that the idea of sol-lunar influence in the production of insanity, has long since vanished before the light of modern science and medical investigation. Now, faith in sol-lunar influence is all moon-shine, by tests and experiments, admitting of neither doubt nor cavil, which the following will clearly prove.

Insane persons have been confined in places where the light of the moon could not reach them, when that satellite cast her full beams on the earth, and no return of "raving madness" came upon them.—This experiment, which has been tried probably a thousand times, clearly proves that excessive light is the cause, and not lunar influence. But the truth of this proposition has been tested by another experiment, quite as conclusive, viz: by the sudden introduction of bright light into a room containing insane patients, at stated periods, which was found, in every case, to cause a return of the disease to a greater or lesser degree. I might name other modes of demonstrating the same truth, known to the medical faculty, but at present forbear. One word more to the lady and I have done. "My belief is not a theory, but a conviction founded upon long observation and repeated experiment." I ask her for one proof by experiment.

MEDICUS.

Philadelphia, 5th April, 1852.

For the Farm Journal.

Geology applied to Agriculture, No. 2.

The disturbing causes of which I have treated in the first number and which afford us the great variety of soils so familiar to every farmer, opens up a *field* to the geologist, unlimited in extent, interest and importance—and which has been *cultivated* during the present century with wonderful energy and ability. It may be safely said too, that few, if any, branches of science have imparted more useful knowledge to man than Geology.

It is not my intention to treat of the science generally, but only to illustrate, so far as I may be able, the geological character of our own State, especially that east of the Allegheny mountains. Those who

wish to acquire a more intimate knowledge of the science, should have recourse to some of the easy elementary works, such as Richardson's, Hitchcock's or St. John's, but those who would delve deeper and lay up larger stores, may resort to the works of Lyell, Mantell, De La Beche, &c. More special application of the science to agriculture has been made by Johnson, Liebig, Bousingault and other writers on agricultural geology and chemistry.

The State of Pennsylvania lies within the temperate zone and stretches in its greatest length from east to west. We might therefore expect to find an equable temperature, or a uniform climate throughout the State, but its physical character produces great variety in climate, whilst geological formations give diversity to the soil. On the eastern boundary we have a large tidal river, and on the western a fresh water lake, both of which contribute to the humidity of the atmosphere over a wide extent, and the whole State is well watered by long and meandering rivers.

The condition of the atmosphere is further greatly influenced by altitude; and the mountain chains which traverse our State from N. E. to S. W. produce an influence on the temperature, which with a level surface could only be found in high latitudes; besides a dryness or hygrometric effect which is chiefly due to elevation or altitude.

Before speaking more particularly of the formations that distinguish the several portions of our State, it is necessary to allude to a great modifying cause which prevails almost every where, and to which mighty process of nature, we are indebted for a large part of the surface or sub-soil which covers the rocky masses beneath—I allude to the *diluvial* or *drift* formation.

It is supposed that at a former period, when the "waters covered the face of the earth," a current prevailed over this continent in a southerly direction, *denuding* or wearing away the softer or more easily decomposable substances, and after carrying them a greater or lesser distance, depositing them on the surface so generally, as to leave in most places a soil capable of sustaining vegetation. This drift formation spread over the whole land is greatly changed in its character and properties, by the local formations on which it reposes,—thus, when we are in a limestone district, the decomposition and wearing away of this rock fertilizes the diluvial coat, and when we pass over the wide new red sand stone belt, which so readily yields to the action of the elements, we perceive that the surface consists chiefly of the same materials as the underlying rocks. When, however, we examine the country where the hard *primitive* rocks abound, we shall find that the drift has been less altered by them than in the former instance.

This diluvial or drift formation, so important in the geological history of the earth, is different and distinct from that of river or lake deposits termed

alluvial—the latter being entirely local in their nature and more limited in extent than the former.

In Pennsylvania we have this latter formation along the borders or valleys of the Delaware, Schuylkill, Susquehanna and other rivers, extending, more or less modified by drift, over considerable width of surface, especially west of the mountains.

The fine silt of the river bottoms belonging to this class furnishes us with luxuriant meadows and garden lands. Of this description is most of the soil along the Delaware and Schuylkill, in the vicinity of and below Philadelphia. The shores of the Susquehanna too, form a long range of exceedingly fertile soil, being either entirely alluvial or compounded of alluvial and diluvial deposits with the disintegrated substances more recently washed from the hills which overlook them.

Between the river bottoms or alluvial of the Delaware and the red sand stone belt is a primitive range stretching across the State, and consisting chiefly of gneiss, mica, hornblend, clay-slates, crystalline limestone, serpentine, &c. Most of these rocks are too hard to form by their own decomposition a deep soil, but they have been pretty well covered by the drift, which superadded to their own product have made a light friable loam which yields well to the hand of industry. Of the effect which the rocks of this district have on the soil over-lying them, I shall speak more particularly when treating of their composition.

"These primary stratified rocks," says Professor Rogers, "commence in a narrow point about six miles E. N. E. of Trenton, expanding gradually in their course to the W. S. W. until they form a broad belt occupying the whole of the southern townships of Chester, Lancaster and York counties, where they leave our State and pass into Maryland. The southeastern margin of the formation crosses the Delaware at Trenton, where it is well exposed forming the falls of the river. Along its course for several miles southward a deep covering of diluvium, conceals a large portion of the belt and precludes our discovering its local features."

"The greater portion of the southern and eastern sections of Philadelphia county," continues Professor Rogers, "shows a deep covering of diluvium concealing the gneiss and its associated rocks except where they are exposed in the vicinity of streams. In this part of their range the primary strata are much traversed by veins of coarsely crystallized granite, in which the three ingredients, *felspar*, *quartz* and *mica* are often of unusual size, the felspar being generally by far the most predominant mineral and exhibiting a remarkable tendency to pass the condition of *kaolin* by decomposition. This rotting by atmospheric influence is not confined to injected veins of granite, but characterizes also a large part of the gneiss especially in the country around Philadelphia, where the

rocks are sometimes in a decayed and pulverulent condition to a depth of more than twenty feet."

The gneiss projects above the diluvium at Fairmount and affords extensive quarries in that vicinity and also at the Falls of Schuylkill. The same belt of grey granite gneiss is developed on Darby, Crumb, Ridley and Chester creeks. In proceeding westward up the Schuylkill the felspar becomes less, while the amount of mica is greatly augmented.

This primary formation besides furnishing highly crystalline marble in abundance, is rich in many other mineral substances of economic value. Magnetic iron ore is found in several localities, limestone is abundant, graphite or black lead exists in Bucks county, and steatite or soap stone has long been quarried in Philadelphia and Montgomery counties. The prevalence of felspar, especially in the form of kaolin, while it imparts fertility to the soil will doubtless at some future period be used in the manufacture of porcelain, this being the material to which is chiefly due the superior excellence of the finest china ware.

In the next number, I shall give a diagram, by my friend, Prof. Rogers, illustrative of the geological formations of Pennsylvania.

A. S. ROBERTS.

Philadelphia, April, 1852.

Translated for Farm Journal.

Agricultural Chemistry, No. 9.

5. *Poppies* require much nitrogen and but little phosphoric acid, and are consequently an excellent crop to precede winter grain.

6. *Wheat and spelt*. Of the elementary ingredients of these nearly one fourth are nitrogenous, appearing principally as gluten in flour. Among the constituents of their ashes, phosphoric acid and potash are predominant; while soda, sulphur and other similar substances are present only in small quantity. Silicic acid is a chief ingredient of the straw. The requisite nutriment must consequently be present in great abundance, in due proportion, and in a proper state of solubility, if the grain and straw are to be perfectly formed and the crop preserved from lodging. From these considerations wheat or spelt should regularly be put in as the first crop after the application of barnyard manure; and when wheat does not succeed well after recent manuring, the cause will be found in the fact that the ingredients of the soil had not attained the necessary degree of decomposition and solubility. It is therefore always advisable to prepare land for wheat in such a manner as to promote the disintegration and decomposition of the constituents of the soil, and to regulate duly the relative proportion of its combustible and incombustible ingredients. If from the rank and luxuriant appearance of the stalks in the spring, it appears that the carbonaceous and nitrogenous elements predominate, while the incombustible ingredients of the soil remain inert, the decomposition of the soil must be promoted by stirring it by harrowing and thus con-

necting in some measure the undue mixture of the elements. This renders the importance and advantage of *drill culture* apparent; and renders it manifest, moreover, that this culture can be properly applied only where it is designed to add to and combine with the abundant supplies of carbonaceous and nitrogenous matters in the soil, the due and requisite proportion of mineral elements. When wheat or spelt are grown as the second or third crop after the land has received a dressing of barnyard manure, and when the preceding crops were such as require and absorb much sulphur, then gypsum or liquid manure acidulated by sulphuric acid, should be applied. The reason why wheat following wheat, in the same field, rarely succeeds well, is to be found in the fact that this crop requires and takes from the soil large quantities of phosphorus, and consequently the second or succeeding crop seldom finds a sufficient supply of this material remaining in the land. But a deficiency of potash in the soil may also cause the second crop to fail. Hence, if two crops of wheat are designed to be grown in succession on the same field, prudence requires that the soil should be furnished with an adequate store of phosphorus and potash, if it do not naturally contract these substances in very great abundance. This may be effected by manuring it with guano, ashes, or bone-dust properly prepared with sulphuric acid.

7. *RYE*. The chief elementary constituents of the ashes of this plant and grain, are phosphoric acid and potash, with relatively little lime or sulphur. Rye also contains somewhat less of the nitrogenous elements than wheat; while its straw contains much silicic acid. Hence rye is advantageously cultivated as the first crop, after the soil has received a dressing of barnyard manure.

8. *BARLEY*. This grain contains a considerably smaller proportion of the incombustible elements, and especially of the nitrogenous substances, than either wheat or rye—only about eight per cent; and it likewise contains much less carbonaceous matter. Of its incombustible ingredients, phosphoric acid is the chief, though it contains less thereof than is found in wheat or rye. Next come silicic acid and soda, though only in small quantity. Of potash and lime barley contains but little, though its proportion of sulphur is somewhat greater than that of the other cereals. As barley needs considerably less potash than wheat or rye, it may advantageously follow either of them in course, if the soil be in other respects still in good condition. But barley succeeds best after potatoes or turnips, because after such crops it finds the soil well stirred and loosened, and its required aliment in the proper state of solubility. When barley is to follow winter grain, it is well to give the soil a dressing of bone-dust dissolved in dilute sulphuric acid, thus supplying two of the substances which are indispensable to the growth of this

grain—namely, phosphoric acid and sulphur. If barley be grown on land which abounds in nitrogenous substances, the grain will be found to contain an excess of nitrogen in the gluten, and be devoid of starch, which is a substance containing no nitrogen. Such barley contains indeed an increased proportion of nutritious elements, and consequently yields flour better suited for bread; but it is almost entirely useless for brewing, because beer brewed from it contains but little spirit, clarifies with great difficulty, and has a decided tendency to become stale very soon.

9. *OATS*. This grain contains the smallest proportion of the nitrogenous elements, and may therefore be cultivated on soils containing very little of such substances. Silicic acid predominates in oats over the other incombustible elements; while phosphorus, potash and sulphur occupy only a subordinate rank. Oats consequently require less of these substances than any other species of grain; on which account this crop is content with inferior soils, and will thrive where no other grain succeeds. But as oats require an excess of silicic acid for the formation of its haulm or straw, the land intended for this crop should be repeatedly ploughed in the preceding autumn.

10. *MILLET*. The elementary substances of this grain are the same as those of oats; but the plant does not possess the same vigorous vegetative power. With proper cultivation, it succeeds best in poorer soils, containing naturally the same elements which oats require.

11. *INDIAN CORN OR MAIZE*. Though this plant requires very little nitrogen, it needs most abundant supplies of phosphoric acid and potash, and is especially benefitted by a dressing of well rotted barnyard manure.

12. *LUCERNE*. Lime takes the first rank among the constituents of this valuable plant; after which come potash and phosphoric acid. It also contains sulphur and soda, with only a small proportion of silicic acid. Of its combustible elements the greater part are nitrogenous. Lucerne possesses uncommonly great powers of vegetation. By means of its deeply penetrating roots, it reaches and draws up again the substances which the rains have carried down deep into the soil or subsoil. One consequence of this however, is that the soil must become the more exhausted the longer it is occupied by this plant; and the duration of lucerne, as a productive crop, is longer or shorter according as the land on which it is cultivated contains naturally a greater or less amount of its appropriate and required nutriment. And as the restoration of the substances drawn up by the roots of lucerne from the depths of the soil, proceeds only very slowly, it is readily explained how it happens that this crop can be cultivated with advantage, on the same land, at long intervals only.

13. *RED CLOVER*. In this plant also the predomi-

nating ingredients are lime and potash, with a not inconsiderable proportion of sulphur, but less phosphoric acid and nitrogenous substances. The remarkable effects of gypsum on this crop have already been explained. The reason why red clover will not, ordinarily, thrive well on the same land, except at long intervals, is because, the particular substances which clover requires are speedily exhausted and cannot be rapidly enough replaced by the natural process, of disintegration and commixture. Another cause may be found in the absence of calcareous matters in the soil; and as the very slow development and formation of potash in the soil may at times prevent the due growth of this plant, a seasonable application of unleached ashes may serve to prevent a failure of the crop. As the roots of the red clover collect from the subsoil and store up the principal ingredients required by wheat and spelt, it proves itself to be a very valuable forerunner of those grains.

14. *ESPARCELTE, or sainfoin*. Its principal constituents are lime, phosphoric acid, soda and sulphur, with less potash than the other clovers contain. As it also contains a certain proportion of nitrogenous elements, it on the whole greatly resembles red clover in its characteristics, except that it contains less potash and more soda; and its prominent elementary ingredient is lime, it delights in a calcareous soil. Like lucerne, and for the same reason, it succeeds well on the same land, only at long intervals.

15. *WHITE CLOVER*. Its chief ingredients are potash and lime. It thrives best on hill sides with a clayey soil, where the gradual abrasion of the surface is continually exposing fresh layers of the clay to the process of disintegration.

16. *BEANS*. These contain much nitrogen; require a large proportion of potash, soda, and sulphur; and therefore properly come in as the first crop in a rotation, after the application of fresh barnyard manure.

17. *LENTILS*. These are similar in their composition to beans, as are *peas* likewise. But neither peas nor lentils succeed well after a dressing of fresh manure, as it causes rankness of vegetation and prevents the formation of seed.

18. *VETCHES*. These also are very similar to beans in their elementary ingredients; and green vetches plowed under are a most excellent manure, because thereby the carbonic acid and ammonia they contain are arrested and fixed, and the potash is brought into a soluble state. Vetches intended to be plowed down, should receive a dressing of gypsum, because they need lime and sulphur, and their fertilizing properties are greatly enhanced by these substances.

19. *BUCKWHEAT*. The grain of the plant, in its composition, resembles that of rye, for which reason it requires a similar soil, and like conditions as regards manure.

20. *HEMP* contains a large amount of carbonaceous

matter, with proportionally little nitrogen. In its ashes, lime is the predominant ingredient and occurs in considerable quantity. Next in order, come potash, silica, phosphoric and sulphuric acid. Its remaining ingredients require very small supplies of manure; but a liberal application of lime and sulphur is indispensably necessary, which are furnished by a dressing of gypsum, and the application of liquid manure. The land also must be very thoroughly tilled. As hemp takes up but little of the ingredients required by winter grains, with the exception of lime only, it proves a good precursor of such crops, if the land has previously been well dressed with barnyard manure.

21. **FLAX.** Silicic acid constitutes the principal element of this plant. Then follow lime, phosphoric acid, potash and soda, in about equal quantities; and lastly sulphur, of which flax contains about twice as much as hemp. Carbon and oxygen constitute much the greater portion of its gaseous elements, while it is found to contain but very little nitrogen.

22. **TURNIPS.** These contain much albumen, and consequently much nitrogen; then follow lime, soda, potash and phosphoric acid in considerable abundance; with a large proportion of sulphur and oxyd of manganese—from which ingredients their nutritious qualities are derived.

For the Farm Journal.

Agricultural Nuisances, No. 9.

TEN O'CLOCK, TWELVE O'CLOCK, STAR OF BETHLEHEM, SNOW DROP.

French, Dame d'onze heures. *German*, Die vogel-milch.

Ornithogalum umbellatum, *Lin.* *Scilla campetris*, *Savi.* *Stellaris corymbosa*, *Mench.*

Ornithogalum is said to be derived from the Greek *ornis*, a bird, and *gala*, milk. The German signifies bird's milk. It is said to be the plant referred to in 2d Kings, vi, 25, as "*dove's dung*,"—"and the fourth part of a cab of *dove's dung* for five pieces of silver."

There are nearly eighty species known, chiefly indigenous to the south of Europe, South America and Africa. The roots of several species are eaten, tho' they are not very palatable. According to Pallas, the roots of the *O. pilosum*, are eaten by the Greeks of the Crimea.

The plant under consideration is from Europe, and is very frequently introduced into flower gardens, from which it is apt to escape, and if neglected, becomes a serious nuisance. I have noticed it in the spring of the year in the vicinity of Philadelphia, and also in Delaware and Chester counties, having possession of large plats of land. It is propagated by the bulbs very rapidly, and I am informed, when it takes possession of the soil it is almost impossible to extirpate it, so exceedingly tenacious of life are the roots.

It belongs to the 6th class *Hexandria*, 1st order

Monogynia, in the Artificial System of Linnaeus. To the Natural Order *Liliaceae* and Tribe *Asphodeleae* in Gray's Botany of the Northern U. S.

The roots are small white bulbs, like little onions. The leaves are from six to twelve inches long, narrow, furrowed, and very smooth; green, with a white line running along them. The stem is from six to ten inches high, branched near the top, round and smooth. The flower stem one to two inches long, with a narrow thin leaf at the base; leaves of the flower white within, green externally, with a white margin. The pod is thin, somewhat three cornered, each cell containing a few dark, roundish seeds. In a wild condition it seldom produces seeds.

One means of destroying it is to plough up the bulbs in the fall, and turn sheep on them to eat them. Another is to subsoil plough the land, and bury the bulbs too deep to grow; others sow salt on them to induce the cattle to eat them, but the best way is to eradicate them from the garden and neighborhood before they get into the farm. In this plant, an ounce of preventative will be found better than two pounds of cure.

J. M. McMINN.

Unionville, Centre county, Pa.

I will endeavor to send your York county correspondent some seeds of the *Viburnum oxycoccus*, or high cranberry, next season.

Raising Calves—A New Method.

While on a short visit to the farm of Mr. D. M. Crowell, of this town, a few days ago, our attention was drawn to a plan of raising calves for early sale, which, to us, in this section of the country, has the appearance of novelty, and seems worthy the attention of stock growers.

Mr. Crowell took ten calves (all heifers) last spring, and commenced feeding them on sour milk at a few days old, keeping them on the same kind of food during the summer, taking good care to feed them uniformly, but not very abundantly, so as to keep them growing thriftily without forcing too rapidly. In the fall they were put in the stable, and fed on hay and a little meal, increasing the quantity of the latter gradually, with a view of fitting them for Beef in the spring, at one year old or a little under.

These ten calves now look like young oxen, and are estimated to weigh about 500 lbs. each alive. They will probably be sent to market soon, say next month, when we shall see how it will be relished by the lovers of good eating. For ourselves we should hardly find it in our hearts to decline a dinner from one of the best of them. We understood from Mr. C., who is one of our best farmers, and who is making this trial by way of experiment, that he is not quite satisfied thus far with the present attempt to raise Beef in one year, and that he intends to renew the experiment another year, when he thinks some improvement can be made.—N. Y. Farmer.

Address delivered before the Lancaster County Agricultural Society.

AT ITS ANNUAL MEETING ON THE 13TH OF JAN., 1852,
By JAMES GOWEN, Esq.

CONCLUDED.

My object in adverting to those wonderful discoveries, is, to ask of you, brother farmers, to admit the possibility of great changes being made in the practice of culture and husbandry, and what is equally important, to admit that changes are really needed to bring us on a footing or along side of other callings, who, by some short cut, have got the start of us, and can turn out better work and more of it than they did or could do forty years ago; while we remain pretty much in the same condition we were in then; working as hard and making as little as at any time within our recollections; wheat, corn, roots, grass, etc., scarcely maintaining their former average per acre, while the cost of producing them is certainly not diminished. Well, having, as I hope you have, admitted all this, I would take occasion to ask you to go a step further, and that is, for every one to resolve, by every means in his power, through observing, experimenting, reading and comparing, to gain more knowledge and throw more light on the theory and practice of Agriculture, for the purpose of improving his own practice, raising the character of the profession, and increasing the wealth of the State, by increase of products and bringing the lands into higher condition.

Inspired with the hope that you are prepared to listen to suggestions tending to improvement, from even the least pretending source, I now return to the remarks I had intended to make on the practice of every-day Husbandry.

It is a good old maxim, that "whatever is worth doing at all, is worth doing well," and, that "we should begin at the beginning." Agreeably to this, I shall begin at the Manure, which, if not the basis of good culture, is indispensable to the production of crops on such lands as we cultivate. The manure heap is aptly termed the farmer's golden mine, from which he extracts the veritable ore itself, through a process of assay and coinage, elaborated on his fields, by Nature's self, through every stage of vegetation, from the embryo germ to the perfect maturation of every plant. No skill, no shift, that I have witnessed, ever did succeed in producing even a tolerable crop of grain or roots without a liberal application of manure, proportioned to the condition of the land and the nature of the crop to be raised, without exhausting it to a greater degree in value than the profit realized from the wretched product forced from the impoverished soil. How essential then is it that every degree of care, every expedient should be resorted to by the farmer, to increase and preserve in the best condition, every thing within his reach, having the character and quality of manure; and, how lamentable to witness the general inattention so prevalent among farmers to this first indispensable point in a good husbandman! You may visit any number of farms, on none of which but it is almost certain to find the farmer at work—even hard work—and yet, a glance at the condition of his stables and barn-yard is sufficient to show that he is laboring in vain, while the stables and yard are neglected, and the manure permitted to waste so shockingly—one day's waste in this quarter, if prevented, would repay perhaps a week's work of such labor as engages his attention. Now it is not pretended that in looking to the ma-

nure, he should neglect the other work; both can, and should be attended to; the thing required is proper attention to both, conformably to economy and good management. If the stables and pens have not been emptied or cleaned for a week or a month; if the manure heap is not well constructed to prevent washing and waste—if the droppings of the cattle in and about the yard are not constantly taken up while fresh and thrown upon the lighter substances upon the heap, but are left to be burnt to cinders by the sun, and tossed about with the winds, or washed by the rain, or frozen with the frost; of what avail is labor on land thus cheated of its nourishment while being worked to death? If such things be, it were less than full measure of justice to call them disgraceful; on the other hand, if duly attended to, the propriety of doing these things is so self-evident, and the ease with they may be performed under a proper system, which so apparent, that but little commendation is due for the service. He who would be deserving of praise in this respect should be found adding to the manure heap gatherings from ditches, decayed wood, leaves, weeds, bones, and the droppings of horses and cattle on the roads and lanes near to the farm, with many other things not necessary to mention here, all of which, from time to time, might be collected at little expense of time. It may be asked what can be done with the bones? The best way of converting them into manure would be to grind them; an apparatus might be profitably employed for the purpose. They can easily be reduced by saturating them with a solution of one part sulphuric acid (oil of vitriol) and two parts water, when placed in a heap, underlaid and surrounded with mould, as sand is placed around lime to make mortar, throwing in the mould occasionally to unite and catch the falling substance from the bones. As all may not be reduced by the first sprinkling, another heap may be formed of so much of the old one as remains unreduced, proceeding as at first till all is reduced. If this method be considered too troublesome, the bones will be found to be worth all the trouble of gathering them, for placing in the manure heap, to be thrown aside when the manure is being hauled out, to be again deposited in the succeeding heap. Their decomposition will be slow, it is true, but their presence in the heap will more than repay the trouble of keeping them from year to year. They may be put away at once by burying them near the roots, at a suitable distance from the stems, of pear and other fruit trees, and grape vines; the fine fruit that will in after years be produced by the trees thus treated will attest their value. I am thus particular in pointing to bones, not only on account of their fertilizing properties, but to awaken attention to the necessity of husbanding everything available for manure. It seemed strange that we should witness the gathering of bones at our very doors, along our rivers and canals, to be shipped at Philadelphia to England for manure, and not avail ourselves of an article that the English farmers consider worth importing from so great a distance. It is asserted that over four millions of dollars' worth of bones are annually consumed in England for agricultural purposes. Then to think of the folly of purchasing guano, imported from Peru, at forty dollars per ton, when it is in our power to make a full supply of manure at home. The farmer who cannot maintain his land in high condition by the manure made upon his farm, is not worthy the name of husbandman.—How should this be done? I answer by keeping a large stock of cattle, and letting nothing go to waste. "Waste not, want not," is a saying worthy of special regard. The quality as well as the quantity should

be taken into account: one load of well-preserved manure, from the heap of a pains-taking farmer, is worth two loads of his who is careless—this is fifty per cent. in favor of the former. Guano cannot be objected to as a manure, for it abounds in fertilizing ingredients, but its cost is objectionable. In our climate, the same amount of money paid for guano, if invested in stable-yard manure, would be of more benefit to the land in the long run. No manure is more to be relied upon than that furnished by horses, cattle, sheep and swine. In the year ending the 30th June, 1850, there was imported into the United States no less than twenty-one thousand two hundred and forty-three tons of guano; this, at forty dollars per ton, amounts to eight hundred and forty-nine thousand, seven hundred and twenty dollars. At the port of Philadelphia alone, in 1851, four thousand, nine hundred and eighty tons were imported; if sold at the price quoted, it would amount to but little less than two hundred thousand dollars.

Of all the concentrated or extraneous manures, poudrette, when properly manufactured, is the best and cheapest, and, for obvious reasons, should be most encouraged. A large supply of this excellent article may soon be expected from the works about being established by Professor Peyson, a clever French Chemist and engineer, who has made arrangements with the Board of Health of the city of Philadelphia for disinfecting or deodorizing cess pools, and the converting sewerage and putrescent substances into poudrette. I witnessed an experiment by him on a cess pool at my residence last May, when he deodorized the contents of an old deep well in the space of fifteen minutes. The object of having it done under my inspection was for the purpose of taking charge of the disinfected mass, at the instance of the Philadelphia Agricultural Society, to ascertain whether the process he conducted would not destroy the fertilizing property of the fecal matter. To this end I applied it to a part of a patch laid off for ruta бага turnip, to be compared with other very strong manure, principally from a slaughter-house. I found the poudrette, through all the stages of growing the crop, equally as effective as the other manure, and giving as good a yield in turnips. This is instanced to show what science can do for agriculture, and to point to resources not often taken into account by farmers. The turning this offensive matter, which among a dense population is a source of inconvenience and disease, into a state to be handled with less unpleasantness than good stable manure can be, is a triumph to science, and, if properly encouraged, will add to the agricultural products of the State thousands upon thousands of dollars annually.

To speak of lime, as I feel bound to do, in connection with manure, requires no small degree of courage, knowing the great value you place upon it.—Broadly, then, I hold it not to be a manure, in the common acceptance of the term; and that its so frequent application upon a large portion of your land, the heavy loam and clay lands, is not only destructive of the real manure applied to those soils, but to the inherent organic fertility found in them. Quick-lime, spread on or with manure, evolves or liberates the most active elements or fertilizing ingredients in the manure, facilitating their escape into the air.—Not only so, but so long as its causticity continues, which, from the large portion of magnesia generally found in lime—the burning process, if I may be allowed the expression—is likely to be kept up for a long time, during which the vegetable ingredients in the soil are being too rapidly and unnecessarily wasted, to the great detriment of the soil, and to the in-

jury of almost every subsequent crop raised upon it. In no case can such lime be safely applied in quantity, as is customary, except where the soil is overcharged with vegetable mould or abounds in fibrous roots. If dressing after dressing of fifty or more bushels of caustic lime to the acre be applied every four or five years, nothing can save the soil from the accumulated injuries thus heaped upon it, but the application of a great deal more barn-yard manure than, under the condition of no lime, would be needed, to counteract or repair the mischief doing, or already done by the lime. Here, then, is a needless expenditure of lime and manure, which, if time would permit to go into a calculation for a few years, would show an astounding amount in dollars. As well might you be found heaping wood on a fire to keep up a comfortable temperature in a house on a cold day, while you kept the street door open to let in the cold, when half the fuel would serve to keep the house warm if the door were shut, as to apply caustic lime to heavy limestone land, in quantity as it is usually applied, thereby rendering it so necessary to put on so much more manure to modify it.

By way of illustrating the opposite tendencies of lime and manure, suppose a heap of rich manure removed from where it had stood some time in a field, the spot on which it stood being surcharged with the liquid it had absorbed from the heap. If seeded in this condition, the grain would not head or fill—at best it would be rusted or choked with weeds. In such a case, what would be the readiest method a farmer could adopt to restore this over-rich spot to usefulness? Why, nothing more nor less than to administer to the soil a strong dose of quick-lime, by trenching and mixing it well in, throughout the spot affected. This would put its plethora to a purgation, and soon render it lean enough for active service.—On the other hand, a scabby spot, left on a field by a heap of lime, can be restored by pouring a quantity of liquid manure upon it, or by trenching in well-rotted barn-yard manure, in excess. By this it would seem that lime, in some degree, is as antagonistic to manure as the sun is to moisture. But it may be claimed that lime is made use of as an agent to prepare food for plants: be it so then, and allow that in some cases its services are useful; would that justify its indiscriminate application as a feeder, as well where there is nothing for him to do in his line, as where there was something he could do lawfully.

In the general, lime is so wasteful and ravenous a cook, that he sometimes consumes more than he furnishes to the family of plants it is intended he should provide for; nay, it may be suspected, that when his allotted means fail to appease his gnawing appetite, he will feed on the plants themselves, though they may have a little of his own blood in them. Do not, I pray you, take this as a wholesale condemnation of lime. As an agent, it is useful in meliorating certain conditions of soil, if judiciously applied. Light sandy, micaceous or isinglass, red shale and slaty soils, may in general be benefited by dressings of lime; but on clayey limestone soil I should deem its application unnecessary, if not injurious. To mix in a good dressing of common sand, would be more rational by far than throwing lime into it. The sand would be harmless at least; the lime in my judgment could not be so. If the value of the lime, so inappropriately applied, were expended in wood ashes and pulverized charcoal, it would show results incomparably remunerative. In thus pronouncing so unequivocally upon the merits of lime, I am aware of the risk incurred; but if it should serve no other purpose than to lead to a closer observation

of its effects by others, I shall feel fully compensated, and content me, in abiding an unprejudiced verdict, on the opinion so frankly avowed.

This leads me to say a word on another agent, Gypsum, or Plaster of Paris; and here I feel at perfect liberty to admit its surprising beneficial effects on soils and vegetation. That so small a modicum of this cheap and easily applied mineral should exhibit such wonderful influence in conserving the fertility and capability of land to sustain it so ably under the exhausting process of producing, must astonish every experienced and experimental farmer! The question, as to how it acts, is one that has challenged the observation of many inquiring minds, and seems at this day not to be fully settled. Some hold that it supplies, in itself, an element necessary to the development, growth, and perfectability of plants, inasmuch as gypsum, and the sulphuric acid it supplies, are found in the ashes of the plants. Others maintain that its beneficial agency consists in its conservative capacity to husband, or prevent the escape of ammonia and other subtle elements of fertility in the manure and soil, fixing or retaining them in the soil, so as the plants may feed upon them through all the stages of vegetating. To this latter theory I am fully inclined. Those who adhere to the other opinion rely upon, as already stated, the evidence of gypsum being found in the plants; and hence the necessity of an adventitious supply of gypsum, lest the land should be destitute of this indispensable ingredient. But taking this plausible deduction into view, how could so small a quantity as a bushel of plaster, sown on the surface of an acre of land, considering its insolubility, be taken up in so short a period as the season of growth by a plant, such as wheat for instance, whose roots penetrate so far below the surface of the ground? The shortness of the period of growth will more forcibly apply to clover and grass for mowing, which, from the time the plaster is applied, till the harvesting of these crops, less than three months, would be too short a period to expect they could have taken up the plaster sown upon them. That they did not take it up, or any of it, is probable: that they did take it up, could only be proven by chemical tests hardly possible, it is presumed, to conduct to any positive certainty.

The theory, then, that the gypsum exerts an influence merely, or only, in holding in solution, as chemists would say, the fertilizing gases for the use of the plants, seems unquestionable. I am strengthened in this by experience in sprinkling plaster daily in my stables, for years, on the removal of the litter and dung: its effect is, to abate at once the effluvia, showing the influence it exerts over the ammonia.—Let any one try its effects in a foul stable, and he will soon be convinced of the nature of the service it performs, and its great utility in preserving the volatile portion of the manure, so essential to its strength and good quality.

An excellent opportunity was afforded me last July for proving its effects in this regard. The manure used on the ruta бага patch already alluded to, in juxtaposition with the poudrette, was principally from a slaughter-house; it was particularly odorous, and I had it plowed in as soon as possible. A few days afterward there came on a heavy rain succeeded by a sultry sun, and the patch became very noisome; had a bushel of plaster immediately sown upon it; was present when the sowing commenced, but left, and returned to the patch as the operation was finished, and was gratified to find that in so short a period, about an hour, the disagreeable odor had almost entirely subsided. From this, is it not manifest

that it was owing to the action of the gypsum that the offensive smell was abated, and that the strong effluvia was nothing more or less than the ammonia escaping from the soil, which had so recently been impregnated to a high degree by the putrefaction from the slaughter-house manure? Then, did the gypsum neutralize or destroy the fertilizing gas, which was poisoning the atmosphere? or did they both unite, from the principle of affinity or attraction? I believe they united. The plaster, in descending, may have carried so much of the gas with it as fell in its way, purifying or relieving the air of it so far; and, when lodged on the ground, became a receiver to take in, or a lid to cover the volatile elements of fertility that would escape—holding them until rains and dews should wash them from its embrace to enrich the soil, and furnish food to the rootlets of the plants that nestle beneath, waiting for the precious tricklings. If this simple explanation shows, with some degree of accuracy, the action and influence of gypsum, how insensible then must the farmer be to his own interests, who will not provide a suitable supply of this perfect God-send of a substance, wherewith to sprinkle his stables, his manure, and his fields?

While treating of plaster, clover, from association, naturally presents itself; and as time will not permit to enter upon cropping and culture, I feel inclined to make a passing remark upon it here. There is a prevailing opinion that clover is favorable to the land as a non-exhauster, if not an enricher of the soil.—If it derive this character from the idea that it draws more nourishment from the air than the soil, I beg leave to dissent. I am not much of a believer in the doctrine of atmospheric nutriment, and yet I am not prepared to reject it in toto. A close observation will establish, I think, that it is owing to the shade the clover imparts to the land that it exhausts so little of the soil. Buckwheat furnishes another instance, with this difference, that the supply required to fill the head or mature the grain in the buckwheat, is greater than what is needed to form the flowers of the clover. Shade is a wonderful conservator of soil; and this suggests how careful we should be to expose our land as little as possible, in a bare or naked state, to the severity of our summer suns and winter frosts. But to shade may be reckoned the loss sustained in the clover, and consequent *gain* to the land, from so much of it being left on the field at hay-making, especially when the clover is grown with timothy, a practice that cannot be too strongly condemned. The top-dressing thus given involuntarily to the land, from the best and strongest parts of the clover—the fine leaves and flowers, strewn around—contributes in no small degree to the good condition claimed for the soil after crops of clover; add to this, the quantity of clover roots spewed out upon the land through freezing and thawing, left to rot upon it, and you have almost the sum total of the causes which lead to the hypothesis that clover is a non-exhauster, or improver of the soil. If this be the case, is it not proper we should look closer into cause and effect, and not blindly follow illusive practices, so subversive of our own prosperity? I must not be understood as condemning the practice of growing clover: I condemn it not, but insist that every crop grown should be well husbanded, and put to its proper use, and not wasted on the field where it is grown. And here it may not be out of place to explain why clover and timothy should not be grown together. One ruling objection is, they do not ripen at the same time. If the clover be cut when ready for mowing, the timothy cut with it is of little account, not having attained its

growth; it shrivels astonishingly in the sun while drying; what is of it is acid, disagreeable in taste, and unwholesome, from not having matured or elaborated its sap. If, on the other hand, the timothy is left to ripen, the clover then is almost a total loss, nothing of it reaches the barn fit for cattle, or even fit to supply the place of straw. Independently of this, if a fine sod is desirable, as it undoubtedly should be, it never can be found with timothy and clover. Why? Because, from the start at growing till the end of their respective terms, they are in habit, taste, and condition uncongenial, and therefore inappropriately put together. While growing together the first season, the bushy head of the clover pushes aside or smothers the tiny blades of the young timothy; next spring, much of the clover has been forced from the ground by the frosts of winter, leaving the stems and roots of the timothy sadly exposed to the freezing and thawing of March, with its occasional chilling winds; and hence the impossibility to find a continuous, compact sod, on any field thus cropped. And who takes the pains to calculate the loss on spaces left bare where the clover stood, or reflects on the impropriety of wasting land and labor? When timothy is required, it should be sown alone, and permitted to mature suitably for hay. Orchard grass and clover may be sown together, because they ripen at the same time, and delight in the same soil; but where a good, well-set sod is wanted, to last for several years, no red clover should be sown with the timothy or orchard grass. The clover should be kept by itself, and confined to fields or patches intended soon to be broken up.

There is another remark, however it may conflict with preconceived opinion or established usage, a sense of duty compels me to make; and that is, of all the time-wasting, land-cheating practices, none is more to be deprecated than that of turning in green crops, as a succedaneum for manure. In whatever place this is practiced, however strong the land may be at the start, the system, if persevered in, must inevitably bring the land, its owners and the country into a state of poverty. No good husbandman would think of pursuing such a course. Think of the time lost in preparing ground for a crop, seeding it, and instead of allowing it to mature, to be gathered to the barn, ploughing it under, to serve as manure to the land on which it was raised! Manure, indeed! To call the acidulated water, which the decomposition of partly grown clover, buckwheat, &c., produce, manure, would be a misnomer—the calling of a thing by the wrong name. Where a winter crop in the spring shows unmistakable signs of proving a failure, a clever farmer should, and would plough it in, and substitute a summer crop in its stead, so as to provide against loss of time producing, and to get what he could for the manure he had bestowed upon the winter crop the previous fall. It is intolerable, the cant of want of vegetable matter in the soil, as excuse for turning in green crops. No soil that is well supplied with barn-yard manure, and laid down to grass occasionally through a judicious rotation, can be destitute of vegetable matter. If the turning in, year after year, scant crops of clover and the like, be persisted in, the land so treated must, in a brief period become not only destitute of vegetable mould, but of every other organic ingredient necessary to fertility.

Two considerations should ever govern the practical farmer. The first is, the absolute necessity of maintaining his land in high condition—"good heart," as it is termed. The second is, the system best adapted to impair as little as possible the first or main object,

through a judicious adaptation of crops, in view of profitable yield, at the least possible loss to the soil. In proportion as these considerations shall influence, in like proportion will be the good or bad culture and husbandry on the farm.

To maintain land in good condition, there is no resort within my experience equal to soiling, on old well-cleared-farms; if no other respect, the increase of manure dropped in the stables and yard, at hand for preserving, instead of its being wasted on the lanes, fields, and ditches, would be sufficient to recommend it to the provident husbandman. This increase of manure, giving increase of fertility to the soil, and by consequence increase of products, is so progressive, and mutually so self-sustaining to the cattle and land, as to defy calculation. The enlightened farmer, who has experimented on it, can only compute or appreciate its multiplying results. It is easier, however, to illustrate the evils of depasturing exposed uplands, than to calculate the benefits accruing from the system of soiling cattle; but the one will in some degree unfold the other. Suppose we begin with fifteen head of grown cattle, and inquire how many acres, under our fervid suns, would it require to pasture them from May till November, on fields of artificial grass, denuded before the previous winter had set in to impoverish them farther with its killing frosts—the cattle to be turned out on the first of May in condition as is usual in such cases? Why, not less than thirty acres. Now I aver that five acres of well prepared land, near to the barn, under patches of rye, clover, and orchard grass, lucerne and corn, to be cut green, and fed judiciously in the stables or sheds—the cattle having a spring in some spot to be driven to for water and exercise—would sustain these fifteen head of cattle better than the thirty acres appointed for them to graze on.—Here, then, is a saving of twenty-five acres of land by this operation. And how much better would be the condition of this land under grain, or grass for mowing, than it could be under the continual biting of the cattle, and the scorching heat of the sun?—And in how much better condition would be the cattle, having plenty of juicy food, with time to rest and ruminate in the shade, to that of ranging all day under a burning sun, tired and fatigued in limbs and jaws, gathering a scanty, scorched herbage, that but mocks their restless cravings? Add to this the quantity of manure that may be saved in these two months, with the increase of dairy products, and you can form some idea of the beneficial workings of the system of soiling. It may be objected, that the additional expense in wages or labor incurred in cutting and feeding has not been brought forward. Well, let us examine this item. These cattle must be turned out, and brought in from the fields, daily to be milked; this, under the circumstances, by no means rare, of the fields being distant and fences not very good, consumes time and breeds confusion, from the frequent interruption to other work having to be suspended while looking after the cattle that have, perhaps, broken into some forbidden field or thrown the bars down. Then allow for so much time and labor as is thus spent in the common way, and you have to take into account only the additional unconsumed time of a man or a well-grown boy, who would be required to attend constantly on the cattle while being soiled. A boy who can milk, clean stables, mow a little grass, clover or corn, wheel it on a barrow to the stables, or hitch a horse to haul it, would be sufficient for the undertaking; but even should a full hand be required, the wages for two months would not exceed thirty dollars; but who would think of

wages, when the work is chiefly getting manure for the mere wheeling it out, as would be the case if the stables be cleaned out as they should be, three times a day. In this way forty to fifty head of cattle might be kept for milking and breeding, upon any commonly good farm of from seventy to one hundred acres, admitting at the same time of more efficient cropping, through a series of years, than if but some eight or ten head were kept in the ordinary way, and even these to be turned out on the roads and lanes while the crops are in, as is sometimes the case, until turned in upon the stubble and young grass with the swine, so soon as the grain is removed from the fields. The soiling should not be continued longer than two months. The cattle from July should have the range of the mowed grass fields the remainder of the season, with the stubble land in due time. In July, the orchard, grass and clover, the best artificial grass for hay and pasture, will be ready for second cutting; but no good husbandman, who values the condition of his land, would think of mowing second crop—the cattle only should cut it. Second crop makes poor fodder, and to turn in the cattle so soon as the scythe has ceased mowing either first or second crop, be it meadow or upland, to exterminate the roots of the grass during fall, completely denuding the fields when winter shall have set in, is not only bad policy but wasteful economy: an acre or more of turnip, and other roots, would serve a better purpose for winter food than second crop grass and clover.

It is a reproach to Pennsylvania that her cattle and dairy products should fall so far short of New York. The census of 1840, if it can be relied upon, with that of 1850, as far as has been given, show that we fall below New York in dairy products about eight millions of dollars annually. This is a large item in one product, and is just so many millions a year abstracted or lost to the income wealth of our Commonwealth. Another item is no less startling—it is, that New York produced, according to the former census, twenty millions of bushels potatoes more than Pennsylvania. The difference in dairy products cannot surprise, when the difference is perceived in the quality of our butter and that of New York—I alluded to salted or preserved butter for winter use; ours scarcely averages eight cents a pound—a considerable portion of it sells from five to six cents per pound for grease—while that of New York averages eighteen cents a pound. I have taken some pains to ascertain the quantity of New York butter that is sold annually in the Philadelphia market—some of it, no doubt, consumed in Lancaster and neighboring counties—and from the most reliable sources am led to believe that it falls little short of two hundred thousand dollars! Here, then, is the money of farming Pennsylvania going into the pocket as it were of New York, for butter alone, to the tune of two hundred thousand dollars every year, to say nothing of cheese and potatoes. Is not this startling, if not shameful? and should it not serve to rouse us to a better sense of our own interests? Now, a cow of same breed and quality will cost as much in New York as in Pennsylvania. The land and climate of the latter are as good, if not better, than those of the former. What, then, makes the difference? Nothing, but that the skill of the one in dairy products and the management of cattle, is greater and better than the other—a difference which we should endeavor, by all means, to equalize at least.

The time I had intended to occupy has elapsed, and therefore must bring my remarks to a close. The preparation of the soil and adaptation of crops, with their culture, are necessarily excluded. My principal

object, as you may have perceived, was to promote the furtherance of societies such as yours, believing as I do that in no other way can the improvements needed in culture and husbandry, on public considerations as well as on individual account, be so effectually accomplished as by a combined effort of enlightened and patriotic minds, devoted to that object.—One word as to the adaptation of crops to the soil. There is scarcely a farm of any considerable size, much less a district of country, but exhibits some variety in soil, and which does not require a special and judicious discrimination in adapting the crops to its peculiarities. To follow, then, a common rotation, as if the soil of the whole were common or equal, must end in disappointment to the hopes of the farmer, and peculiar loss to the public in general.—Whether from this, the waste of manure or the neglect to husband it, or inaptness in resource, it is apparent the lands are not as productive as they should be. If they be ill used, wasted, or robbed of their fertility, what is to become of Pennsylvania when they shall not yield their adequate and natural increase? Thousands of acres of fine land are being doomed annually to deterioration through a vicious system, by their owners, who are little better than cumberers of the ground, and by the destruction wantonly perpetrated by the tenants. This latter class are as wolves among flocks, ever prowling about, and victimizing wherever they come. There may be some honorable exceptions to this sweeping charge, but it may be asked, where is the farm under rent, for a few years, but has its character sunk and its fertility destroyed? In England, and some parts of Europe, this evil is well provided against by remedies, founded as well on public policy, conservative of the landed interest, as protective of private rights; and he who wantonly deteriorates the soil there, is held in little less detestation than a public robber.

If, in filling up the broad outline broached at the beginning with such detail as in my judgment seemed best calculated to subserve the great cause of Agriculture, I have drawn too largely, Gentlemen, upon your time and patience, fidelity in purpose and zeal in executing must plead my excuse for any seeming diffusiveness. The attentive hearing, however, you have afforded to my remarks, leads me to hope no other apology is necessary. One thing at least is certain, that I have fallen far short of the service I could have wished to render to the cause your kind partiality designated me to promote.

Earl of Seaham.

This month we give a portrait of the distinguished bull, Earl of Seaham (10,181.) He was bred by John Stephenson, Esq., of Wolviston, county of Durham, England, and was calved April 21st, 1848, now three years old. He was selected by Mr. Stevens, and was imported by him and Colonel Sherwood. He was shipped from Liverpool in June, and arrived in New York in August. In one month after his arrival, and before he had recovered from the effects of his voyage, he was exhibited at the Show of the New York State Agricultural Society, at Albany, in September, 1850, and won the first prize as the best two year old short-horn bull shown. In October, he was exhibited at the cattle show of the American Institute of the City of New York, and won the first prize as the best short-horn bull, in the aged class of short-horns, or bulls two years old and upwards. Seaham was shown at the great show of the New York Agricultural Society, at Rochester, and won the 1st prize as the best bull in class 1, short horns.

Earl of Seaham is of the famous *Princess* tribe of

EARL OF SEAHAM—THE PROPERTY OF AMBROSE STEVENS & J. M. SHERWOOD, NEW YORK.



shorthorns, that is so eminent for style, quality and milking capacity. Col. Sherwood's Red Rose, now four years old, whose dam is a sister to the dam of Seaham, is an extraordinary milker, and from her milk, in 25 days, ending on the 6th of June, 1851, there were made 49 pounds of butter. Another cow of this tribe, Princess I., now owned by Ambrose Stevens, New York city, dam of prize bull Vane Tempest, five years old, sister to the dam of the Earl of Seaham, for two months before being put to grass, this season, on hay and turnips, gave daily from 20

to 25 quarts of rich milk, and only three or four days during these sixty, gave less than 23 quarts a day, and for more than thirty days of the sixty reached 25 quarts. She doubtless would have made as much butter as Red Rose, had the experiment been tried. Earl of Seaham was got by Earl of Antrim (10,171)—dam Primrose by Napier (6,238)—out of Rose Ann by Bellerophon (3,110)—Rosette by Belvedere (1,706) Red Rose by Waterloo (2,816)—Moss Ross by Baron (58)—Angelina by Phenomenon (491)—Anne Boleyn by Favorite (252)—Princess by Favorite (252)

—Brighteyes by Favorite (252)—Brighteyes by Hubback (319)—Brighteyes by Snowdon's bull (612)—Duchess of Atholl by Mastermann's bull (422)—Beauty by Harrison's bull (292)—Tripes by the Studley bull (626). Tripes was bred in 1748 by Mr. Pickering, of Foxton, out of a cow which he bought in 1739, when a calf, of Mr. Stephenson, of Ketton. The female ancestors of Tripes had been bred by, and in, the possession of Mr. Stephenson and his father, back in 1684, in which year Mr. Stephenson, of Ackland, Yorkshire, bought his first cow of the Princess tribe from the Aislabie family, of Aislabie, in Durham.

The numbers refer to the Herd Book in which the bulls are recorded.

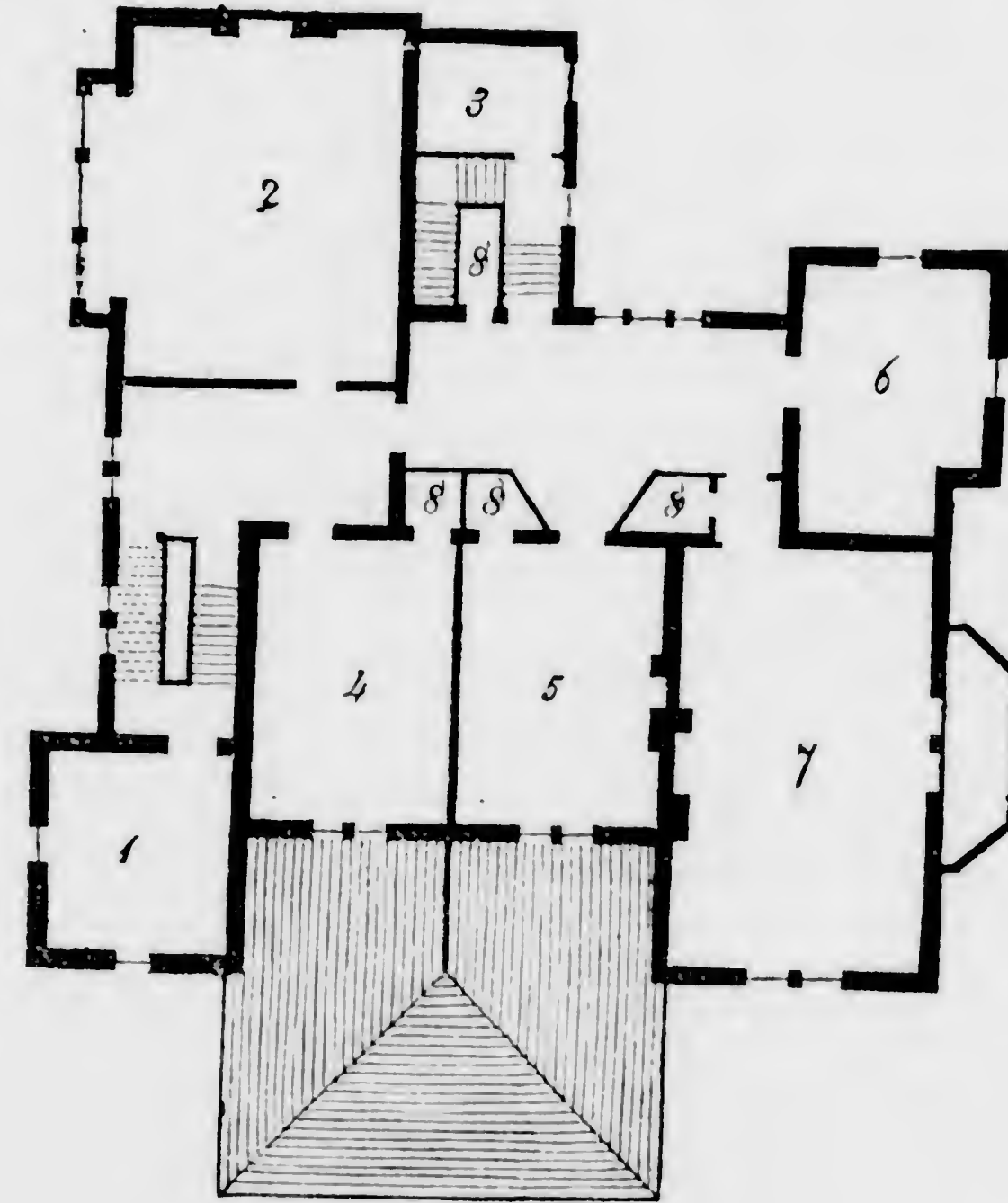
[We are indebted to Mr. C. M. Saxton, the enterprising agricultural book publisher, for the fine cut of the Earl of Seaham.]

THE HOMESTEAD.

[SEE FRONTISPIECE.]

The beautiful frontispiece presented in this number, is from Wheeler's "*Rural Homes*," published by C. Scribner, of New York, and may be taken as a specimen of the various elegant designs presented in that volume. Although at first sight the design may strike the reader as partaking too much of the ancient style, to become an American Homestead, yet a careful examination of the details will remove this objection.

The plan of the principal floor is thus disposed:



The stair-case hall, No. 7, contains the principal stairway, and also a double door leading on to a veranda which might extend along the side of the house, including the western side of the boudoir or not, as seemed desirable.

The dining-room, No. 8, is a large room, twenty-four by seventeen in the clear, exclusive of the projecting western window. Communicating with this is a waiters'-pantry, No. 9, furnished with glass and china closets, and opening into a vestibule, No. 10,

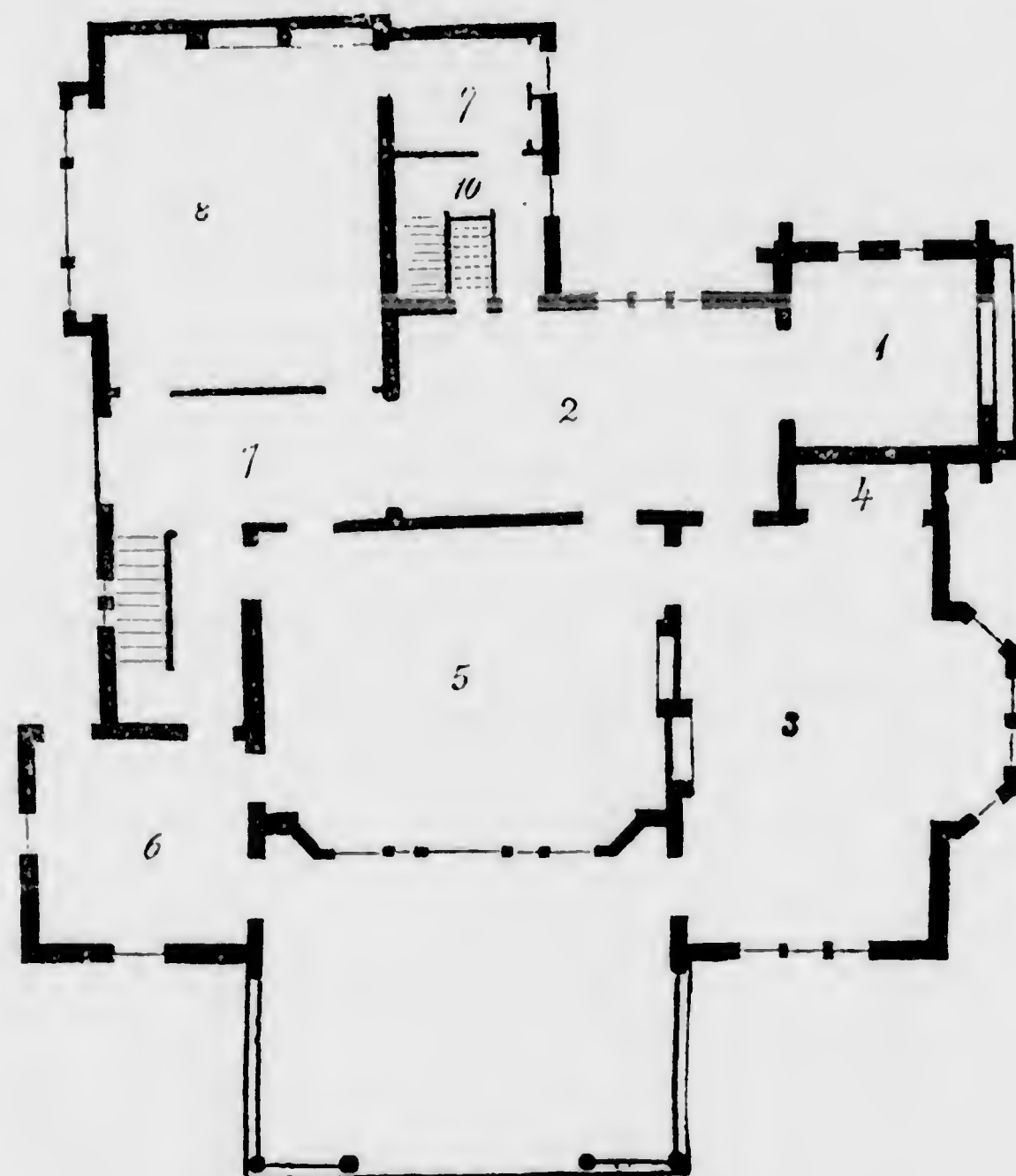
No. 1 is the entrance vestibule, with inner doors shutting it out from the hall, No. 2. The vestibule is twelve feet square; the hall eleven feet wide by twenty-five in length. This hall is lighted by a large window looking north, and communicates through an opening also shut off by double doors, with the staircase hall and vestibule No. 7. The main hall would, from the nature of its light, be an appropriate place for the hanging of pictures, and would be also—as it should be—at all times a cool and agreeable apartment.

Immediately on entering the hall is a door leading into the library, a large and cheerful room, twenty-six feet by sixteen, on one side of which is a bay window, and at the end a stone fire-proof closet recessed and arched overhead, (No. 4,) in which books, plate, or valuable papers could safely be stored. The drawing room, No. 5, is entered from the main hall, and also from the vestibule. It is twenty-six feet by about twenty in the clear, and its one side is, by means of large windows, made so as to be entirely opened to the ombra. Connected with the drawing-room is a small boudoir or ladies' room, being the first story of the tower, and is thirteen feet square.—The boudoir, drawing-room, and library, all open on to the ombra, a large and agreeable shade room, the natural artistic development of the progress from the ancient "stoup." This is a delightful place for sitting in, and as an easily obtained addition to a suite of rooms, cannot be too strongly advocated as a feature in American domestic architecture. It could be enclosed with glass in the winter, and artificially warmed; thus used as an enlargement of the drawing-room, or as a conservatory.

in which are stairways, leading to the kitchen below, and to the floor above, and also a door into the main hall.

I have in this design assumed that the land so falls away on the northern side as to permit the kitchens to be in a basement below, hence the arrangement of the domestic offices is not shown; but if more desirable, they could easily be extended in a wing jutting out towards the north, and made to communicate with the pantry as at present shown. The spot upon which this design was studied had the ground so falling away, and induced the arrangement I have given.

The chamber plan gives ample accommodation for a large family, and with a due regard to rooms for guests. It is thus arranged:



staircase, and is entered by descending a few steps from the spacious hall or corridor over the hall below. As this room need not be more than eight feet high, a dressing-room might be contrived over it from the chamber last spoken of, a step or two being made between the floors. No. 4 and No. 5, are chambers over the drawing-room, each of ample size and well provided with roomy closets.

No. 6 is over the entrance vestibule, and the recessed closet below is thrown into the room, thereby making it a very convenient shape for a bed. No. 7, is a room the full extent of the spacious library below, and over the bay-window, a balcony is obtained entered from French windows. Nos. 8 and 9 are closets.

Above this the roofs would permit cool, well-ventilated, and large sleeping-rooms for servants, and it will at once be seen that the provision for the repose of guests is as hospitably ample as would probably be needed.

The staircase leads to a landing on which is a door into chamber No. 1, over the boudoir, which, not being so high as the drawing-room, etc., is entered upon a different level above, to that of the floor over the main portion of the house. Above this is another room of similar size, and then a space in which is a stairway leading to the observatory or upper story of the tower.

Continuing up the main entrance, the vestibule shown upon the plan is reached; this is nine feet by nineteen. A door in this leads to a large sleeping-room, No. 2, the same size as the dining-room below, and to which is a dressing-room, not shown upon the plan, but occupying the place designated by No. 3. This room (No. 3), containing a bathing apparatus, etc., is on a level with a landing on the servants'

TRIUMPH OF AMERICAN SKILL.—Mr. W. H. Carr, proprietor of Croasdale's Seed Drill and Broad Cast Sower, has presented us with a pair of India Rubber Pocket Combs, which are not only beautiful in point of finish, but give promise of great durability. So closely do they resemble the buffalo horn, that the most practised eye would scarcely detect the difference. For this novel application of India Rubber, we are indebted to Mr. Charles Goodyear, whose discoveries of the various uses to which this gum may be applied, have not only conferred additional lustre upon American ingenuity, and immense benefits upon the community at large; but have served to reward him richly for his labors. The uses to which the prepared gum is now susceptible of application, are said to be almost infinite.

See that your implements are in good order.

Communications.

For the Farm Journal.

Why farmer "M." lost his Cows.

MR. EDITOR:—Some three years since, in passing a neighbor's farm, a most most noisome stench saluted my nostrils. A glance served to explain the cause. My neighbor's cow had died, as I supposed, from *hoven*; and, as is usually the case, the carcass had been dragged to a distant part of the farm to be devoured by the dogs and crows, and fill the atmosphere with its unhealthy odor. Neighbor M. being one of those who regarded all improvements upon the old system of farming as downright, dangerous innovations, I thought this would be a fine opportunity of convincing him of his error, and accordingly called upon him as I passed his house. After a little general conversation, I introduced the subject of the dead cow, by enquiring the cause of her death and the mode of treatment pursued for her recovery. As I anticipated, she had indulged too freely in the use of rank young clover, and that the old and cruel remedy of stabbing had been tried to relieve her; with what success the putrefying carcass in the distant fence corner too plainly told. Upon asking whether no other remedies had been tried, he assured me he *knew* of none. I then mentioned to him the efficacy of the *tarred-straw band*, referring to several cases, in every one of which it had proven successful. This had the desired effect. He immediately became anxious to know all about the method of using it; which information I freely gave him, at the same time informing him that I had learned this simple, but almost certain cure, from a source which I knew he held in utter contempt—an Agricultural Periodical. After pondering for a moment upon the information he had received, he looked me earnestly in the face, and with an expression of seriousness, almost ludicrous, remarked, "Neighbor B, I have been acting the part of a very foolish man in underrating the value of papers devoted to farming. The fine cow lying out yonder is not the first I have lost. Last summer I lost two others with the same disease; and all for the want of that knowledge which I might have acquired at an expense of a dollar or two yearly. We learn wisdom from experience, and I will for the future strive to repair the error into which I have fallen by taking at least one Agricultural paper." In this mood of mind I left him, fully satisfied with the success of my errand. M. is now a regular subscriber to several Agricultural periodicals; and I am happy to say has lost no cows since that time, from *hoven*. If you conceive this simple statement worth presenting to your readers, it is at your service; and if it should appear, and neighbor M. chance to see it, I hope he will pardon the use I have made of the incident.

A. L. B.

Franklin county, April 8, 1852.

[Our correspondent did not entirely fulfil his mis-

sion to his neighbor, although he did well. The occasion was susceptible of still further improvement. Every portion of that dead cow's carcass might have been turned to valuable account, instead of merely furnishing a feast to troublesome dogs and crows, and poisoning the surrounding atmosphere. All well informed farmers know that animal substances possess much greater fertilizing properties than vegetable. The action of animal manures is immediate. The flesh of animals not only decays rapidly itself, but imparts the principle to other organic substances with which it is mixed. The blood possesses fertilizing powers in an equal degree. The skin, hair, hoofs, horns and bones might all have been converted to profitable use, and at less expense and trouble than dragging the carcass to such a distance. All that was necessary was to cover it sufficiently to prevent the escape of the volatile matter when decay commenced, and the result would have been a fine mass of rich fertilizing compost, which would have served to replace, in some degree, the loss of the animal.—Ed.]

For the Farm Journal.

Cultivation of Locust Trees.

MR. EDITOR:—The cultivation of the locust is becoming a matter entitled to serious consideration, as our woodland is rapidly disappearing, and with it of course, our material for fencing. To keep our farms properly enclosed, as every farm should be, locust posts are very essential. To provide against a contingency which, in a few years, will certainly arrive, (in our county at least) I beg leave to suggest the propriety of at once commencing the cultivation of this important tree.

The locust is not difficult to propagate. Where a plantation or nursery is to be raised from the seed, the plan I pursue is to procure the seed from the trees in the fall, pour boiling water over it, permitting it to remain in the water twelve hours. I then plant it in a rich mellow soil. It germinates very readily; and if the same attention is paid the young trees, which is usually given to fruit trees, in three years they will be large enough to transplant to the roadside or along the division fences. Care should, however, be taken not to set them out (unless properly protected) until they are large enough to be secure from the attacks of cattle.

By commencing with the seed this spring and sowing a small quantity every succeeding spring, in the course of twenty or thirty years, a sufficient supply will be had to fence any reasonably large farm.—Twenty or thirty years may seem a long time to wait. So it is; but when it is remembered that at that time locust posts will not be obtained as readily as now, the objections to taking time by the forelock, and preparing a locust nursery at once, will be removed.

A difference of opinion exists in relation to the durability of the various kinds of locust. That

along the river bottoms has always been considered the best; but from close observation, I am led to believe that our yellow locust will last equally as long, even if grown upon a poor soil, and the sooner it is used after it attains a size sufficiently large for posts, the longer it will remain under ground without rotting.

L. S. REIST.

Locust Grove Farm, Lancaster co., Pa.

[Our correspondent's suggestions are worthy attention, though we do not agree with him in regard to planting locust trees along division fences. If proper allowance is made for the diminution of crops in the vicinity of the trees, the propriety of selecting some other place will become apparent.

The *Acacia* or Locust tree combines, in an eminent degree, the useful with the beautiful. It is admirably adapted to ornamental purposes, as well on account of the rapidity of its growth, as of its light and pleasing foliage, and graceful appearance, where proper attention is given it. French writers highly extol the properties of this tree, and assert that its shade encourages the growth of grass. We do not know this to be the case. If it is, the objection to planting them along the division fences of the farm would be removed. At all events, there are many spots on every farm which might be profitably devoted to the cultivation of the locust.

We would here remark that the great difficulty in propagating the *Acacia*, by young trees from the nursery, arises from the want of care in transplanting. The long cylindrical roots which it throws out abundantly should be injured as little as possible, and as much care should be manifested as in the transplanting of fruit trees.

The *Acacia* is also very subject to the attacks of borers of the *Clytus* family. If examined in the month of September, the trunks of the trees will be found to abound in them, and the females busily engaged in depositing their snow-white eggs in the crevices. The eggs are speedily hatched, and the grubs burrow into the bark, where they feed until the approach of winter, when they become torpid, remaining so till spring, at which time they bore through the sap wood into the trunk. For a more complete description of this destructive insect, with illustrations of its ravages, and methods of destroying it, see pages 65—66, vol. 1 of the Farm Journal.—Ed.]

For the Farm Journal.

Cultivation of Indian Corn.

MR. EDITOR:—The Farm Journal has made its appearance amongst us, and the favorable impression it has already made, may be regarded as a guarantee not only of its future usefulness, but of its more extensive and general circulation with our people. In accordance with the request so frequently made by you, I herewith transmit a brief account of what we are doing in this neighborhood.

One of our principal crops is Indian corn, which is

cultivated to a considerable extent. My mode of raising this valuable cereal is, to take a clover ley of one or two year's standing, haul all the barn yard manure, (long and short) I intend applying, on to the ground during the winter and spring, and break up the sod as early in March as the season will permit. The plowing is done as deep as a good team of horses and the condition of the ground will admit. The ground is then marked out four feet each way, and the corn planted from the 10th to the 15th of May.—

My seed corn is prepared as follows: It is first soaked in a strong solution of salt-petre for twenty-four hours. A mixture of equal parts of tar and water is then heated and poured over the soaked corn, stirring the whole until every grain is well coated with the tar. Plaster is then added, and the stirring continued until the grains separate easily. From four to six grains are put in each hill; and as soon as fairly up, we put on plaster at the rate of a small handful to each hill. We then go through it with the harrow and cultivator alternately, five or six times, thus effectually keeping down the grass and weeds, which are apt to become troublesome if not attended to in time.

The average of my crop is about fifty bushels to the acre; some of my neighbor's fields producing from sixty to eighty bushels. I submit herewith a statement of the cost and profit per acre of cultivating corn in this vicinity, estimating fifty bushels as the average yield.

Interest on land, at fifty dollars per acre,	\$3.00
Manure hauling and spreading,	2.00
Breaking sod,	1.50
Harrowing,	.50
Marking out and planting seed,	.80
After culture,	1.25
Husking and hauling to market,	2.00
	\$11.05

The whole cost of producing 50 bushels is eleven dollars and five cents, or twenty-two cents per bushel. We get forty cents per bushel for it very readily, leaving a balance of nine dollars, clear profit, per acre.

A. S. GREEN.

Yellow Springs, Blair co., Pa.

For the Farm Journal.

Plowing in Green Crops.

In the address of James Gowen, Esq., delivered before the Lancaster County Agricultural Society, I find a sweeping condemnation of the practice of plowing in green crops for the purpose of improving the soil.

Notwithstanding the very respectable authority, I beg leave to examine the positions taken in the following extract.

"There is another remark, however it may conflict with preconceived opinion or established usage, a sense of duty compels me to make; and that is, of all the time-wasting, land-cheating practices, none is more to be deprecated than that of turning in green

crops, as a succedaneum for manure. In whatever place this is practiced, however strong the land may be at the start, the system, if persevered in, must inevitably bring the land, its owners and the country into a state of poverty. No good husbandman would think of pursuing such a course. Think of the time lost in preparing the ground for a crop, seeding it, and instead of allowing it to mature, to be gathered to the barn, ploughing it under, to serve as manure to the land on which it was raised! Manure, indeed! To call the acidulated water, which the decomposition of partly grown clover, buckwheat, &c. produce, manure would be a misnomer—the calling of a thing by the wrong name."

In the country remote from cities and considerable villages, the farmer can only obtain such manure as can be raised on his own land, with the exception of such as do not belong to the stable or barnyard—for instance, Gypsum. Farmers near cities should not forget this fact, and write as though exhaustless quantities of manure were within the reach of every farmer.

In view of this, I contend that the practice of turning in green crops, especially clover, should be encouraged and practised much more than it is. Let a crop of clover, nearly approaching maturity, be plowed into the land, and it must result in far more benefit to the soil, than it could if gathered and fed to cattle, sustaining them by the formation of bone, muscle and fat, and, after unavoidable waste from beginning to end, the manure carted back again to the land.

But Mr. Gowen ridicules the idea of calling the green crop manure.

Well, if it contains nothing but acidulated water, how do cattle live and fatten, when fed on it, either in a green state or dried, besides furnishing valuable manure?

In this country, on some of our light lands, we have to make a soil, and we do it by the use of clover and plaster. We turn under the clover, after being seeded two or three years, and in this way soils that would not, when new, bring more than two bushels of rye to the acre, now produce twenty bushels of wheat or fifty bushels of corn. Thus we obtain the means of making a manure heap, which we do not neglect to draw out and apply, while those who follow the skinning process, neglecting to feed their lands with clover, soon find themselves destitute of any thing for the manure heap, and are ready to seek the fertile prairies of the west, there to resume the same exhausting process, on a soil able to bear it longer.

I regret that Mr. Gowen should have given the weight of his name and fame, as an agriculturist and writer, against a practice so beneficial, (in a new country especially) as that of turning in green crops, instead of greedily taking everything off the land, as our most unsuccessful farmers here are constantly doing.

I hope that the farmers of Pennsylvania who read

the journal will consider this matter; and that some may give us their views and lessons from their own experience on this subject.

B. LAFORTE.

Asylum, Bradford co., Pa., March 15, 1852.

For the Farm Journal.

Mules vs. Horses.

MR. EDITOR:—I was much pleased to observe in a former number of the Farm Journal, a very sensible article in relation to the more general use of the mule for farming purposes. The reasoning of your correspondent in relation to the economy of the use of mules, as well as of the mode of treatment, is, I think, conclusive, and should have great weight with those who are hesitating about introducing them upon their farms.

Having for a number of years used mules almost exclusively for the general purposes of my farm, I cheerfully add my testimony to that of Mr. Mumma's, in their favor. I am very well aware that it will be a difficult matter to satisfy the Lancaster County farmer, who, during his whole life, has been accustomed to the use and sight of his fine, sleek-looking, stout-limbed, Conestoga horse; that the more delicately formed mule is at all adapted to his purposes. But the day will come when this prejudice will be removed and mules appreciated as they should be. It is, indeed, a matter of no little surprise, that in this age of improvement, our intelligent farmers should so long have overlooked their merits.

Mr. M. having already adverted to the advantages which farmers would derive from the use of mules instead of horses, I feel some hesitancy in recurring to the subject; but as it is one in which I feel interested, and in which your readers should also feel interested, I hope they will pardon me for again briefly pressing it upon their attention.

My own experience, as well as that of every one whose writings on the subject I have seen, satisfies me, that the farmer, who substitutes mules for horses will save in the first place at least one-half the expense of feed. This is no small item when wheat commands only eighty cents per bushel and corn forty. In the second place, the attention requisite for the mule is far less than that needed by the horse. By this I would not be understood to say, that the care usually taken of the former is what it should be. Their superior hardiness and powers of endurance, are frequently made the excuse for cruel and barbarous treatment. Let the mule be as well cared for as his wants require, and you have still a heavy balance in his favor over the horse. Thirdly, the mule has the advantage in longevity—only reaching his prime when the horse becomes more than useless from old age. Fourthly, the superior hardiness, healthiness of the mule, and his almost total exemption from disease, is another strong argument in his favor.

Now, summing up all these various items, does it

not appear reasonable that the farmer may with safety commence the work of reform, by introducing a mule or two upon his farm each year. If, as is very probable, the lightness of the mule be urged as an objection to him; this can be very easily remedied. Select the largest mares and jacks, breed from them, and in the course of a few years the breed will be so much improved in size and weight as completely to obviate this difficulty.

E. BURFORD.

Philadelphia County.

For the Farm Journal.

Protect the Birds.

The destruction of Birds has become a very serious evil and highly detrimental to the agricultural interests; demanding the attention of those who desire the increased prosperity of our country.

This is essentially an agricultural country, a large proportion of the people are engaged in the culture of the soil, and as a consequence, whatever tends to increase the products of the earth, or prevent their liability to destruction, is of great importance to the community.

Since the return of spring a great number of birds have come back to us from their winter quarters in more southern latitudes, rendering our fields and woodlands cheerful with their melodies. This alone should be sufficient protection for them against the evil propensity man has to destroy them.

Whilst following the plow the past few weeks, I have had an opportunity of witnessing of what great benefit they are to the farmer. As I was turning up the fresh earth, a flock of blackbirds and crows were busily engaged in picking up the grubs and other worms, which are ever ready to destroy the crop of corn, as soon as it begins to germinate. I am quite confident that these birds have done more good by destroying the enemies that prey on the young corn, than they will do harm by eating it themselves. But it is not only the corn crop they benefit; there are many different species of birds requiring as many different kinds of food, and having different habits of life, each in turn serving the best interest of man.

Some resort to the garden in search of the insects that feed on the tender vines; some are engaged in the orchard dislodging from the trunks and branches of the trees, the lurking insect, or destroying the caterpillars that feed on the leaves; and among them all, if we were to acquaint ourselves with their habits and manner of living, how few we would find that are a real injury to the farmer. But how are they regarded by a majority of the farmers? If a black-bird chances to pull a few stalks of corn, all his former services are forgotten and, he is regarded only as a thief, and not unfrequently expiates the crime by a forfeiture of his life. Should an unfortunate wood-pecker or robin alight on a fruit tree, and pluck a berry or two; notwithstanding he may have done much by his labors to arrest the ravages of insects, that

might in process of time, not only have destroyed the fruit, but the tree also; he is considered an intruder, and the farmer in his ignorance drives him from his premises. It is altogether wrong. A little observation and reflection would soon convince him that he is doing himself an injury; and that he had much better take such measures as will prevent the depredations of hunters, who with their murderous weapons are fast destroying the means which the Creator, no doubt, intended as a check on the increase of the insect tribes.

AGRICOLA.

New London, Chester County.

Process of Dissolving Bones.

In reply to the inquiries of Mr. Shubart, of Bethel, Berks county, we are enabled to present the following directions, furnished by our correspondent, S. D.:

For the Farm Journal.

Oxford, April 5, 1852.

MR. EDITOR:—Your correspondent at Bethel proposes several questions on the process of dissolving bones, that it will give pleasure to answer; more especially if it will encourage the more general use of so valuable a fertilizer. 1st. *How long will it take to dissolve bones in their natural state, unground?* It would require so long a time that it would injure materially, or destroy any vessel used for dissolving them in, and would require too much acid; unless the bones were first burnt. The burning rendering them pervious to liquids, they would dissolve in a short time. If well ground, from 6 to 10 days, is sufficient to dissolve them, if not ground fine, it will require a longer time. But it is a question to be solved by nearness to facilities for grinding bones. Whether the loss by burning, of the inorganic matter, so rich in nitrogen, is compensated for by the gain arising from the additional expense necessary to have the bones ground. The burning of the bones I have never tried, and cannot describe the process—but this means of rendering them available has been highly recommended.

In what kind of vessel is the dissolving performed?

Any wooden vessel will answer the purpose, I use our common meat vessels, cleansing them well before and after use; and after several years service they do not appear to be materially injured—the bones and acid have generally remained in them two weeks, and sometimes longer.

What is the price of 100 lbs. of sulphuric acid?

It can be obtained from Chapell, Baltimore, for \$2.50 per hundred pounds, by taking several carboys. It can be bought for about the same, from the manufacturer in Philadelphia, S. D.

SHANGHAI AND COCHIN CHINA FOWLS.—By reference to the advertisement of Mr. Hunt; those who desire good, young fowls, from reliable stock and at fair prices, will know where to procure them.

For the Farm Journal.

Fruit Growing in Pennsylvania.

MR. EDITOR:—Notwithstanding the excellency of the quality, and the extent of the supply of agricultural productions of the farms of Pennsylvania, there are certain articles for which our metropolis is largely dependent upon other States, and with which the large cities of other States are more amply supplied. In addition to these facts, the consumption of these articles in Philadelphia is a large source of revenue to the producers of other States; all of which articles the State of Pennsylvania is abundantly competent to produce. The productions referred to are fruit, and apples especially. The time was, when the city of Philadelphia was abundantly supplied with apples grown in its vicinity—these fruit orchards which flourished for generations in the virgin soil, have become exhausted, and there has been a criminal neglect in not supplying their places by subsequent planting.—The failure is a consequence of the exhaustion of those particular elements in the soil congenial to the production of the apple, and we are now dependent upon other States for a supply of that fruit. The same remark is true also with regard to the peach, and so far as relates to the plum, the Philadelphia market is comparatively destitute. These fruits if successfully grown within convenient access to the Philadelphia market, cannot fail to be a source of profit to the grower. The apples of western New York after being transported hundred of miles over the canals, find a profitable market in Philadelphia and London.

Now it does appear reasonable, that with the extension of our railroads through our wilderness country, abounding as it does, in all the richness of a virgin soil, and one of the best adapted in the world to the growth of fruit; that the business of fruit growing in those sections would be one of immense profit. These lands can be purchased for a few dollars per acre, within convenient reach of the Philadelphia market. We have glowing accounts of the profits of the plum culture in the vicinity of the Hudson, and there cannot be a reasonable doubt that this fruit would thrive equally well in northern Pennsylvania. The plum is a fruit well adapted for carriage to market, even where the distance is considerable. Many varieties will remain sound and free from rot, a long time after being taken from the tree, and always command a ready sale in Philadelphia.

As to apples, those cultivated for our own or a foreign market should be of the long keeping varieties; special regard being also had to the qualities of size and taste. Many of the apples which are now found in the Philadelphia, Lancaster and other markets are apples in name and appearance; but as unlike them in taste as can well be conceived. Insipid and tasteless, no lover of that valuable fruit would for a moment encourage the cultivation of such varieties.

There are varieties which not only keep well; but preserve their taste until mid-summer. These should be chiefly cultivated.

With the completion of the Sunbury and Erie Railroad, nearly the whole of the northern and western counties of our State will have a thoroughfare to market. Does it not therefore become a matter of serious importance to the farmers in those sections to give their attention to planting orchards now? They will find a ready market for all they can raise; for when the demand for our own country is supplied, the markets of the old world are open to receive the surplus. Western New York has already been pouring large quantities of her superabundance of fruit into these channels. Why should not Pennsylvania compete with her, and thus add to the wealth of our State by opening a new branch of foreign commerce?

POMA.

Chester county, April, 1852.

For the Farm Journal.

Why Leave Pennsylvania?

MR. EDITOR:—Would it not be well if correspondents for your Journal could be had in every county in the Commonwealth, who would faithfully describe the agricultural condition of their respective counties. The importance of understanding thoroughly the resources of our State becomes apparent when we look at the tide of emigration tending westward, and the character of those who emigrate. Many of them are our very best farmers—men whose loss we are little able to sustain at this time; and who, perhaps, if properly informed of the advantages which portions of our own State offer, would never think of leaving it. Lancaster, Berks and other of our best farmed and most densely populated counties, have furnished, and are still furnishing, a large proportion of these emigrants. Many parts of Ohio, Indiana and Illinois, as well as Virginia and North Carolina, attest the skill and enterprise of the Pennsylvania farmers who have located within their borders. It is asserted, by those who have visited them, that a settlement of the hardy yeomanry of the Keystone State in the west, is readily distinguished from those of settlers from other States. The neatness and stability of their dwellings, out-buildings and fences—the character of their stock, and the substantial and comfortable appearance of every thing around them, all bear testimony in their behalf. With these facts before us, does it not become a matter of general State interest, to say nothing of State pride, to retain this valuable portion of our population? I think so; and therefore invite the attention of your readers to the inducements which a portion, at least, of Centre and Huntingdon counties holds out to such as may contemplate emigrating westward.

In Penn's valley, Centre county, land of as good quality as that of the famed valley of Pequea, in Lancaster county, with improvements equally valua-

ble, can be purchased for one-third the amount.—Why this great difference in price? Perhaps you will say the difference is caused by the greater market facilities possessed by the Pequea farmer. So far as wheat is concerned, the odds are evidently in favor of the latter; but in other respects they are nearly equal. Our heavy iron works, and the fine lumbering country in the vicinity, furnish us with an excellent market for our other produce; such as beef, butter, eggs, &c.—a much better market indeed than can be found in the sparsely settled sections of the western States for these products.

Our soil is, in many respects, preferable to that of Lancaster county for wheat, but not so good for corn. The average of the wheat crop of our valley, for the last two years, has been twenty-five bushels; and of corn, about forty bushels to the acre. My own crop, and that of several of my neighbors, exceeded this. These are facts offered mainly with the hope of drawing more general attention to this subject.

J. S. F.

Penn's Valley, Centre co., Pa.

For the Farm Journal.

Mineral food for the young Indian Corn plant.

Mr. Editor:—It is generally admitted that if the Indian Corn plant, gets a good start; and appears green and healthy looking, upon its first shooting out of the ground, and can maintain its vigorous appearance whilst young, that its critical period is past.

In the last number, I endeavored to explain the use of Phosphate of lime, and the other fertilizers, that should be supplied to corn ground, that is deficient in the mineral constituents. I will proceed to examine the subject further, and endeavor to show the manner in which this most important crop may be materially aided, in its early development, notwithstanding the ground in which it is planted, may be of the richest that usually occurs in Pennsylvania.

There is constant danger attending the raising of the larger kinds of Indian Corn, incident to late Springs and early Falls, and much advantage is to be derived from any treatment which has a tendency to bring the plant to maturity, in the shortest possible space of time.

When nature undertakes the task of procreation, it provides a store of all the essentials for the early wants of the embryo. But nature goes no farther, and no surplus is ever found. So in the grain of corn, we find all that is necessary to develop the plant, and to furnish it with two leaves and a root, and thus supplied with the means of procuring its own living, leaves it to its new resources.

In a state of nature, before man has deprived the soil of any of its fertilizing elements, these muniments were sufficient for the healthful supply of the wants of the plants, more particularly so in this spontaneous growth, because the climate and length of

season is adapted to their several wants. But this is not the case with the artificial production of Indian Corn, and therefore we must use our endeavors to aid nature by artificially supplying the plant with its necessary food, so that no time be lost, and that it be not retarded by cold or hunger.

Let us take the Indian Corn plant, just at the period, when its stock of supplies from the grain is exhausted, and we find it possessed of two leaves and a root. Up to this time the phenomenon of growth, consists in absorption of water, and new chemical arrangements of the elements originally stored away in the grain. The young plant is now prepared to assimilate food, either from the atmosphere or the earth. This process is very often retarded by the cold nature of the ground, usually a good conductor, and the scanty supply of mineral. In our best soils, this latter is in such small proportions, that although ample after the roots are better developed, yet very insufficient for a speedy growth whilst the roots are small and few.

If, therefore, by artificial means, we can supply immediately to the roots, heat and a small quantity of such matter as is then required, we will aid the plant in its time of need, and when further development has taken place it will take care of itself.

Wheat bran contains in abundance all the constituents that the corn plant at that, or any other stage of its growth, derives from the soil. By the application of $\frac{1}{4}$ of a pint of bran to the hill, and placing the seed in it, and then covering the whole with earth, we will place within reach of the roots of the young corn all that for the time being is required.

The bran as soon as it has become wet, will enter into decay (eremacausis) and carbonic acid will be formed and set free. Heat will be evolved. The free carbonic acid will aid in dissolving the mineral matter, and it will be taken up by the roots of the plant. The root will soon extend over a larger surface and will be adequate to continue the supply without this artificial aid.

Five bushels of bran by double measure, will be sufficient per acre, and the farmer will, if his land is in good order otherwise, be generously repaid in the harvest time of his corn.

This is but one of the many substances that I might mention, and suggest to be used for this purpose, but owing to the fact of its cheapness, and complete constitution, I have chosen it for an example.

J. BLIGHT BROWNE.

Gwynedd, Montgomery co., Pa.

LINCOLNSHIRE PIGS.—We are requested to state that Mr. Cyrus Haldeman, of Bainbridge, Lancaster county, has for sale a number of pure Lincolnshire pigs, which will be disposed of at reasonable rates. He has also a few of the same, crossed with the Chester county breed, which he will sell.

The Strawberry.

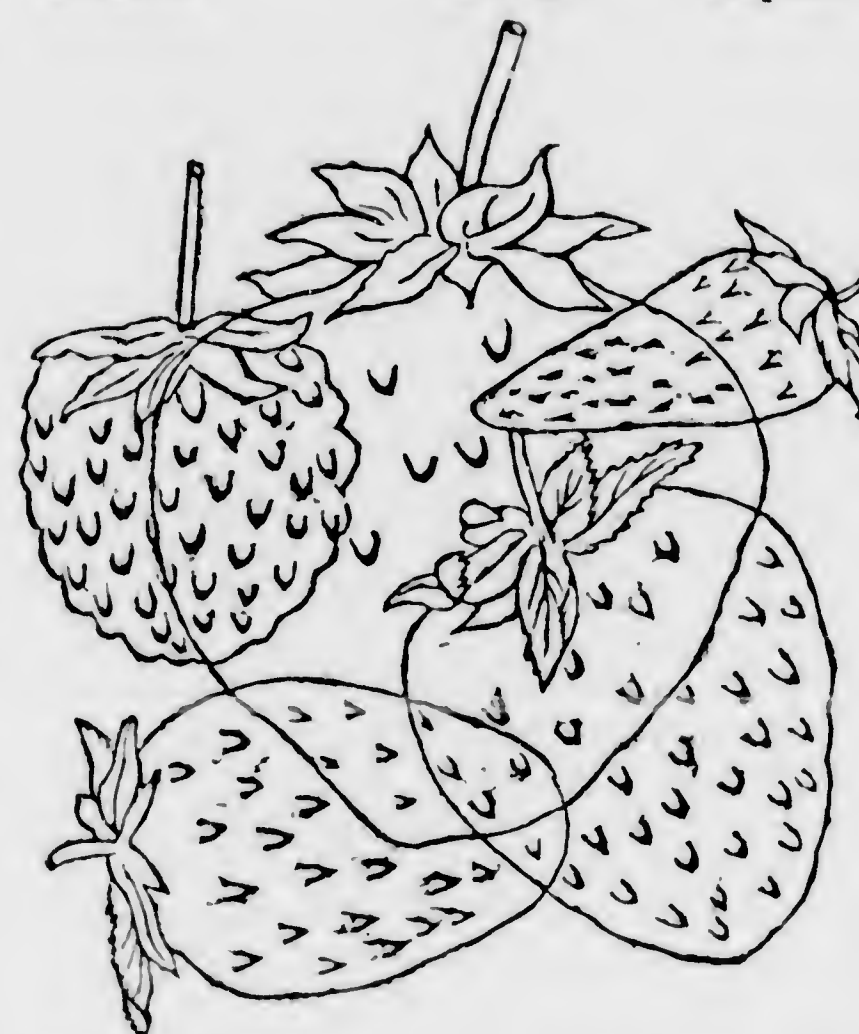
We copy the following, together with the cuts, from a neat and truly useful little volume, entitled the *Fruit Grower's Hand-Book*, by W. G. Waring, of Boalsburg, Centre county:

Comparative outlines of Strawberries, natural size.

Large
Early
Scarlet.

Hovey.

Alpine.



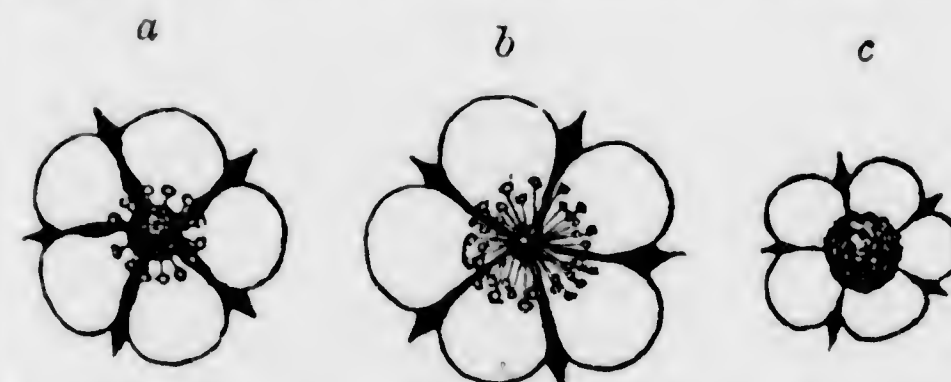
Prolific Hautbois.

Burr's New Pine.

The Strawberry is at once the earliest, the most exquisite, most salubrious, and most readily grown of all fruits of temperate climes. At the same time, no fruit is so little subject to disease or destruction by insects; yet, owing to its manner of growth and bearing, a degree of care and culture is not only necessary, but indispensable.

The Strawberry agrees with the most delicate stomachs, and its free use is always salutary. Immense quantities are grown near the cities and sold at high prices; an average of 200 bushels per day, supplied to Cincinnati, only accelerated the demand.

Most varieties of the Strawberry are of a dioecious character; some are therefore positively barren, while others, in favorable circumstances, are prolific beyond any other fruit on the same area. The male and female plants are distinguished by their blossoms.



a
Perfect or
hermaphrodite blossom.
Productive.

b
Staminate,
or male blossom.
Sterile.

c
Pistillate or female blossom; productive if growing near a perfect or staminate plant.

In the perfect blossom, (a) the central part is the germ of the strawberry, having a perfect pistil (short tube or 'silk') for each seed in the berry; the small stems around it are the stamens. In the male plant, (b) the blossom contains abundance of stamens, but no (perfect) pistils. Varieties

bearing such blossoms are worthless; as they do not produce fruit, their strength is wholly expended in growth, and if present in a bed, they will soon overrun the weaker fruit-bearing plants. The pistillate blossom (c) contains only the germ of the berry, with perfect pistils, and no (perfect) stamens. It is usually smaller than the staminate blossom, and looks more bare. Mr. Longworth's German vine-dresser expressed the difference, by saying "de husband, he have de beard, (stamens,) de frow, she have none."

The proximity of staminate or perfect blossoms is essential to the productiveness of pistillate varieties, and a small proportion in a bed is sufficient to ensure a full crop. Of course perfect blossoming kinds are preferable for this use, as they will produce a crop of themselves. Large early Scarlet is generally used, as it is an excellent and productive sort, with perfect stamens, and expands its blossoms early.

This irregularity in the character of the strawberry plant, (being partly perfect and partly dioecious,) has caused much perplexity and controversy among cultivators, and it is but lately that the true condition of the case has been determined.

SOIL AND CULTURE.—The best soil is a good free loam, and it should be made deep and rich. Set young plants either in August, if the weather is moist, or strong (plants) in April; if planted in the fall, they are liable to freeze out, but this can be prevented by pressing the earth firmly around them, and covering well with leaves, or evergreen spray. In cold districts, it is well to cover the beds with leaves



or straw every winter. In planting, the long fibrous roots must not be crowded together, or they will mould and decay. To separate them, place a small clod or stone (see figure) in the middle of the hole, and set the plant astride on its summit, spreading the roots so as to depend

regularly around it; then fill with fine mould; water, and if necessary, shade for a few days. If plants, received from a distance, appear mouldy, rinse them thoroughly with water, immediately before planting*. Mulch well. The rows may be about 18 to 24 inches apart each way; sometimes they are left wider in one direction to admit a cultivator. Every 3d or 4th row or 4th or 5th plant should be staminate, if the rest are pistillate. Hoe and suppress runners, and in October work in a dressing of manure. The second spring, hoe once and cover the surface with a mulching of leaves or litter. If proper kinds have been planted, there will be a full crop. In October, dig in manure as before. Dry weather at the season of ripening, greatly reduces the size of the fruit.

A strawberry plant fails after producing one or two crops, it is therefore necessary to train a succession of new plants for bearing. This is sufficiently indicated by the habit of the plant, and its profusion of runners; the easiest method of affecting it, is to dig under in strips the slants which have just borne fruit, every year; leaving equivalent strips of young plants for fruiting next year; the growth and strength of these will be greatly promoted by the operation. If the bed becomes grassy, it is best to form a new one, as the grass cannot be extirpated without inju-

*Apples gathered into large piles for grinding, have been preserved from decay, by pouring water on them weekly; the fruit being elevated on hurdles, so as to allow the water to pass freely through.

ry to the plants. As the suppression of weeds is the chief and almost the only difficulty in the culture of the strawberry, clean soil should be chosen, and care used in applying manure free from seeds. A small bed, of two or three perches, properly managed, will yield an abundant supply for a family.

Pennsylvania Horticultural Society.

The stated meeting of this Association was held in the Chinese Saloon, Philadelphia, on Tuesday evening, April 20, 1852.

Dr. Wm. BRINCKLE, Vice President, in the chair.

The display was excellent. The long centre tables were covered with beautiful and interesting plants in flower—a number of which were shown for the first time.

In Robert Buist's collection were *Campanula nobilis alba*, a handsome and showy plant; *Arbutus nepalensis*, an interesting species; *Epacris hyacinthiflora*, *Auricula morning star*, all new and of recent introduction; and two large and fine seedling verbenas; *Pimelia spectabilis*, throwing up from the root innumerable stems bearing umbels of pretty whitish flowers; *Acacia conspicua*; delicate specimens of *Erica pubescens major*, *p. minor*, and *brunoides*; five species of Azaleas, six choice Cinerarias, Rhododendrons, &c., also a dozen of Pansies. In Caleb Cope's collection were a *Henfrya scandens*, *Pussiflora racemosa*, &c., also a collection of *Orchidea*—*Gongora maculata*, *G. picta*, *Orcidium Lanceanum*, *O. Cavendishianum*, *Maxillaria striata*; a cut flower of *Victoria regia*; a moss urn and basket holding choice cut flowers; a basket of ripe strawberries, a dish of grapes, and a dish of mushrooms. John Sherwood exhibited a seedling Rhododendron hybridised with *Azalea sinensis* which is partially evergreen and bears beautiful orange colored blossoms. Joseph Ripka's had a large Rhododendron *Russellianum*, a hand bouquet and a dish of mushrooms. Robert Cornelius' gardener, brought a dozen choice everblooming roses, as many pots of pansies, and a display of forced vegetables, comprising a dozen of cucumbers, half a dozen cauliflowers, four varieties of lettuce, six kinds of radishes, peas and beans in pod, asparagus, &c. Ch. Sheets presented a table of fine everblooming roses. James Powell a number of pansies in pots. And from Charles Horton of the State of Maine superior Baldwin apples.

The following are the reports of the awarding committees:

The Committee on Plants and Flowers awarded for *Roses*—For the best six everblooming to C. Sheets; for the second best do., Thomas Meghran, gardener to R. Cornelius.

Pansies—For the best six to James Powell; for the second best do., to Wm. McIntosh, foreman to Robt. Buist.

Plants in pots—For the best and most interesting collection to the same; for the second best do., to Thomas Meehan, gardener to Caleb Cope.

Boquet design of cut flowers—For the best to the same; for the best hand Boquet to A. Burnett, gardener to J. Ripka.

Basket formed of cut flowers—For the best to Thos. Meehan.

And a special premium of four dollars for four new plants to R. Buist. The committee noticed a stand of choice *Orchidea* from C. Cope's houses.

The committee on fruits report that there was no competition for the schedule premiums. They observed, however, a basket of fine strawberries and a dish of grapes from C. Cope's houses; very superior

apples, from Chas. Horton, of the State of Maine; to each of which a special premium of one dollar.

The committee on vegetables report that they award for *Cucumbers*—for the best four specimens to Thomas Meghran, gardener to R. Cornelius.

Cauliflowers—For the best three heads to the same. *Vegetables*—For the best display by a private gardener to the same.

A special premium for fine early peas and beans to the same. Another to Thomas Meehan for a plate of fine mushrooms.

The committee on a suitable testimonial to the late President, reported that the portrait had been executed and was to be seen in the rooms.

The conclusion of the dissertation of R. R. Scott, on the superiority of the Natural System of Botany over the Linneean, or Artificial, was read.

A prospectus of a new Horticultural Journal, called the *Philadelphia Florist*, the specimen number shown appears very creditable to the editor and proprietor, R. R. Scott, a member, was submitted.

On motion, ordered that a committee be appointed to inspect all the gardens, private and commercial, in the neighborhood of this city, and within the influence of this Society. That the proprietors of such gardens be requested to furnish said committee with a true and correct statement of their respective establishments, and report thereon.

On motion, ordered that the thanks of the Society be tendered to Capt. Wm. McMichael, for the gift of a collection of flower seeds from California.

A letter from Prof. S. S. Haldeman in acknowledgment for his election to the chair of Entomology in the Society, was read.

Five gentlemen were elected members.

THO. P. JAMES, R. Sec.

AMERICAN CUTLERY.—We have before us a pocket knife of American manufacture, which for beauty of finish will compare favorably with the finest specimens of English cutlery. It is from the works of the Waterville Manufacturing Company, located at Watford, Connecticut, and is another gratifying evidence that American skill and enterprise are rapidly outstripping the long vaunted superiority of the English. We have used pocket and pruning knives manufactured by this company, for several years past, and take pleasure in commending them to public attention.

Hydropathic Encyclopedia, Fowler & Wells, New York.

The eighth and last number of this valuable publication has been received. To those who are desirous of familiarizing themselves with the principles of Hydropathy, this work will be invaluable. Every page is replete with instruction, and may be read with advantage by all.

The Model Architect, E. S. Jones & Co., Philadelphia.

Nos. 7, 8 and 9 of this model work has been received. It is a credit not only to the publishers, who have got it up in the most beautiful style; but the designs of buildings, details, &c., all evince that a master's hand controls the work.

POSTAGE OF THE FARM JOURNAL.—For the information of all, we again state that the postage on the Farm Journal, if prepaid quarterly, is one cent on each number, or three cents per quarter. Any higher charge than this is contrary to law.

THE FARM JOURNAL.

Agents.

THE FARM JOURNAL may be had at the following places:—

W. B. ZIEBER, South 3d St., principal agent for Philadelphia.	Lancaster, Pa.
W. H. SPANGLER,	Columbia, Pa.
B. F. SPANGLER,	Harrisburg, Pa.
GEO. BERGNER,	Pittsburg, Pa.
H. MINER,	Chambersburg, Pa.
J. R. SHRYOCK,	Carlisle, Pa.
H. M. RAWLINS,	York Pa.
A. L. WARFIELD,	

and of Booksellers generally.

500 AGENTS WANTED.

We are desirous of securing one or more competent agents in every county in Pennsylvania, to canvass for the *Farm Journal*. Our terms are liberal, and we are assured by well-informed friends in every portion of the State, that competent and active agents could not fail to succeed well. We therefore invite persons desirous of taking agencies to address us (*post paid*) on the subject; furnishing us with satisfactory reference, and stating in what particular county they are desirous of canvassing.

New Cider Mill and Root Cutter.

By invitation, on Saturday, April 24th, in company with about fifty members of the Legislature, we called at the establishment of W. O. Hickok, of Harrisburg, for the purpose of witnessing the operation of an entirely new Cider Mill & Press and Root Cutter, the invention of Mr. H., and for which he has taken measures to secure a patent. It is a small machine, about three feet square, adapted to man or horse power, very simple in its construction, but by a new and peculiar arrangement of the cylinder, capable of doing a large amount of work in a surprisingly short space of time. A half bushel of apples were placed in the hopper, and with one man power, were run through in the space of forty seconds. The pulmace presented the appearance of having been grated rather than ground. So complete was the process, that the cider could readily be squeezed from it with the hand. It passed directly from the cylinders to a tub prepared for the purpose, which was slid under the press, and in *one minute* the company were discussing the merits of the cider.

Every one present was delighted, not only with the cider, but the ease and rapidity with which it was made. We confess that it surpassed every thing of the kind we have seen.

After drinking the cider, Mr. H. substituted another cylinder, and showed the capacity of the machine for cutting roots, &c. A peck of potatoes was passed through it in a few seconds, and were cut into pieces (not grated) of a size admirably adapted for feeding purposes. In this particular, it commends

itself to the particular attention of farmers. For further particulars, we refer our readers to an advertisement which will appear in our next number.

We are requested to say that the machines are now for sale, and on our own authority we state that the price is within the limits of every farmer's purse.—Patent rights will be for sale so soon as the letters patent are issued, which will be in a few weeks.

Economize your Manures.

Notwithstanding the rapid progress which Agricultural science has made, there is one point which never has been, or is likely to be, attained—we have yet to learn how to cultivate our lands successfully, without the aid of manure. The introduction of steam has wrought such an entire revolution in machinery, that we may reasonably indulge the hope that sooner or later it will be profitably applied to agricultural purposes so far as plowing and many other of the operations of the farm are concerned. The electric telegraph has annihilated space and time—facilitated the transmission of news, and materially changed the character of many important departments of trade.—But neither steam nor the telegraph have yet been applied to the restoration of exhausted soils, or can supply those constituents which continued vegetation in the form of wheat, corn, oats, &c., annually take from them. There is no soil, however fertile it may originally be, that will for any length of time, bear without partial, and often complete exhaustion, a system of uninterrupted cropping. The deep rich soils of the Western prairies, the fertility of which was at one time supposed to be inexhaustible; and to which for the first eight or ten years, the application of manure is not only superfluous, but prejudicial; now give unmistakeable evidence of the loss of productive power. Thousands of acres in Pennsylvania that once yielded abundant crops, (but were robbed of their very life by improvident farmers,) and which are now regarded as waste lands; also, attest the necessity of guarding against the future increase of this gradual but, certain dissipation of our agricultural wealth.

If then manures are so vitally essential to the maintenance of the fertility of our soils, is it not a matter of the highest importance for every man who has an acre of land to cultivate, to make himself familiar with the nature—the best method of preparing—the most economical plan of securing—and the most profitable mode of applying them? The generality of farmers never look beyond the mere products of the stable for their supply of this all important material. They appear to forget that they possess a thousand other sources from which fertilizing matter may be procured in greater or less quantities. This should never be. Every farm should boast not only a well cared-for barn-yard manure heap, but, also, its compost heap at every point where a sufficient amount of enriching matter to form one may be found. Let the farmer

who relies wholly upon his stable manure reflect a moment upon the vast amount of valuable, organic and inorganic material he annually loses from the want of a very little care and attention. If he be a man of observation, he cannot fail to perceive that his carelessness in this respect is a source of continued and very frequently, irreparable loss. At least one-half of the inconveniences and losses which farmers sustain in meagre crops and in lands, gradually, but certainly decreasing in value, are the effects of this improvidence. We might refer to the various and valuable manures which even many of our very best farmers permit to be wasted; but, as we intend recurring to this subject again, we shall then endeavor to point out in the plainest possible manner these drains upon the farmer's purse, with the hope of awakening a proper degree of interest in relation to it.

The next State Fair.

We observe that a number of our newspaper exchanges announce Lancaster as the place selected for the holding of the next State Agricultural Fair. We have not learned upon what authority this announcement has been made, as at the time of writing (April 24th) the Executive Committee have not determined where it shall be held. The probabilities, we believe, are, that Lancaster will be the favored spot, as we understand that no other place has entered into competition with it.

PREVENTION OF GUM ON PEACH TREES.—A practical gardener informs us that if the earth is removed from the roots of the Peach trees affected with gum, to a distance of one foot immediately around the trunk, and finely powdered charcoal applied to them the thickness of an inch, that it will effectually check the flow of the gum.

COUNTY SOCIETIES.—Quite a number of the County Agricultural Societies throughout the State have accepted our proposition to send them the *Farm Journal* in return for a list of the names of the officers and head quarters of each Society. So soon as we hear from all, we shall publish the list entire, in order that the *Journal* may be a safe directory to those who desire to communicate with the different Societies.

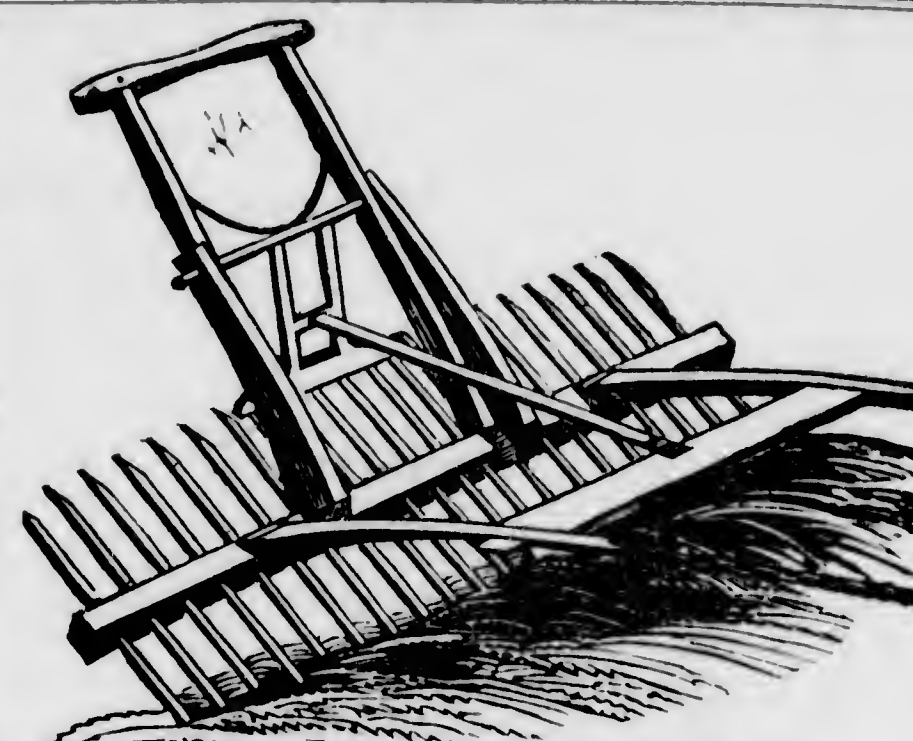
Several new advertisements were received too late for insertion in this number.

GUANO WARE HOUSE.

No. 54 South Wharves, Below Walnut Street.
Peruvian and Patagonia Guano, for sale in large or small quantities, in barrels and bags, on reasonable terms.
JOSEPH L. JONES,
No. 55, South Wharves, Philadelphia.

SHANGHAE & COCHIN CHINA FOWLS For Sale.

The subscriber has on hand a number of young Cochin China & Shanghai Fowls of the latest importation, which he will dispose of at fair prices on post paid application, addressed to
PHILIP HUNT,
West Phila., Chesnut st., 2nd door West of Pub. School House.



JOHNSON'S IMPROVED REVOLVING HAY AND GRAIN RAKE.

THIS Rake is got up in detached pieces, so as to make it convenient for transportation and storage, and so complete that any pair of handles and shafts will fit on any Rake of his manufacture. The above Rake can be obtained of the subscriber at his residence, or at his Mills near Newark, Delaware, either by wholesale or retail. They can also be obtained at any several agencies established in Pennsylvania, Delaware, Maryland and Virginia, of which extensive notice has already been given.

The utility of this Rake is so well established and extensively known, that it is deemed unnecessary to dwell much upon its merits in this advertisement. It is proper however, to state that it has always been awarded the premium, at Agricultural Exhibitions where the competition was fair.

The utmost care is observed by the manufacturer in the selection of timber for these Rakes. None but the best being used for that purpose. They are also ironed in the best manner. Having been engaged in their manufacture for thirty years, the subscriber is very desirous that the high reputation which these Rakes have hitherto maintained should be sustained. It is therefore his wish to dispose of them as far as practicable, by wholesale.

Dealers in Implements will do well to send in their orders at an early day. Orders shall be filled immediately, and the Rakes delivered at the most convenient landing or depot for further transportation.

These Rakes have been found to be the most economical in use, saving their cost at a single day's raking of Hay or Grain. They have also been found very useful in taking straw from a threshing where it is wanted to be stacked.
W. G. JOHNSON.
London Grove, Chester county, Pa.

SIDLE'S HUB, AUGUR AND BOX REGULATOR.

THE subscriber residing in Dillsburg, York county, Pennsylvania, has invented a new and improved Augur for the boring of hubs, and setting the boxes of wagon, carriage and other vehicle wheels for which I have obtained letters patent.

The Augur will bore both ends of the hub at the same time, or either separately—and is the most useful and important invention of the age for inserting wagon boxes and the only Machine in existence by which they can be inserted exactly true—and is so perfectly simple in its construction, and constructed on such just mechanical principles, that it cannot possibly get out of repair.

With this Augur a set of boxes can be inserted in a few minutes—where under the old system it requires hours to perform the same amount of work.

Persons wishing to purchase Territory or Shop rights will please address the subscriber, who will sell on terms that will enable the purchaser to make money.
HENRY SIDLE.
Dillsburg, April, 1852—tf

AGENCY

for the purchase and sale of improved breed of Animals.

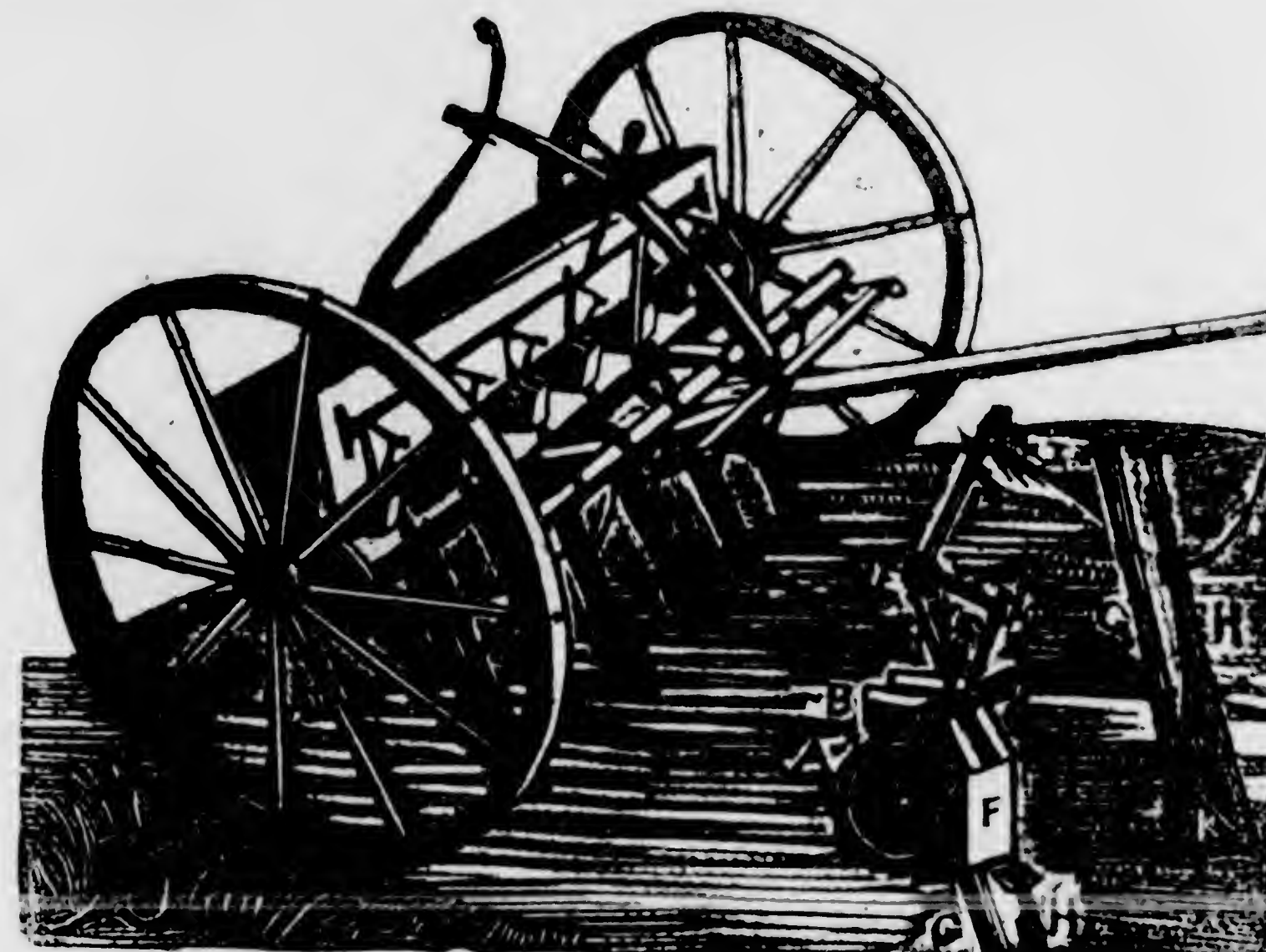
STOCK Cattle of all the different breeds, sheep, swine, poultry, &c., purchased to order, and carefully shipped to any part of the United States, for which a moderate commission will be charged. The following are now on the list, and for sale, viz:

Thorough bred Short Horns and Grade Cattle.			
do	do	Alderney	do
do	do	Ayrshire	do
do	do	Devons	do
do	do	South Down Sheep.	do
do	do	Oxfordshire	do
do	do	Leicester	do

Swine and Poultry of different breeds. All letters post paid will be promptly attended to. Address AARON CLEMENT, August 1, 1851. Cedar st., above 9th. Phila.

HENRY L. TRIPLER,

(Successor to Joseph P. H. Coates.)
Dealer in Grass and Garden Seeds.
No. 49, Market Street, Philadelphia.



THE AGRICULTURAL DRILL!

A Silver Medal awarded by the Maryland State Fair.
Patented November 20th, 1849.

Description of the seeding apparatus. A, is one of a series of Iron Rollers or pulleys, fastened to an Iron Rod or Axle, which revolves with the wheel of the machine; fitting to a curved and grooved casting B, attached to the bottom of the hopper, corresponding with a bevelled opening in the latter, through which the seed is admitted and carried forward by the roller. The quantity admitted is regulated by means of an Iron Rod along the entire front of the hopper, to which all the sides are firmly attached and kept in place by springs J. They are elevated or depressed by a lever D, attached to said rod and operates simultaneously on each side and groove. The lever D, is held in its position by means of the catch I, having a series of teeth or notches. The roller receives the seed in proportion to the size of the opening in the groove, and retains it by means of a cap F, in front of each, and conveys it to the tube G, through which it is discharged, terminating in a cone K, which scatters it across the entire furrow made by the teeth or shanks H, in front, having a broad base of four or more inches.

The object of the invention is to secure an equal distribution of seed in the drills either in ascending or descending hills; to regulate the exact quantity sown per acre, to distribute and scatter the

seed in the drill, from 4 to 5 inches in the ground, so that it will be more perfect in its growth and yield more than if sown by those in ordinary use; in fact, possessing many advantages that cannot fail upon examination to strike all, as the accompanying certificates from competent judges and practical farmers express it, as the best machine of the kind in use.

The broad shovels and cones operate in like manner as by making the furrows with a hoe and sowing by the hand; hence peculiarly adapted for the South in sowing Rice. By elevating the cones the machine sows in a manner broad cast.

We the undersigned, after using Mumma's Patent improved Seed Drill, beg leave to recommend it to the public as one of the best, if not the very best machine for the purpose, [as expressed above,] that is now in use.

Signed David Kinsey, Henry Hershey, Andrew Ebersole, John Eversole, Chas. Redes, John Garver, M. Miers, Jacob Shope, M. D., Samuel Wenger, Peter Eversole, Joseph Hershey, John Lingle, J. Miller, Geo. Noll and Michael Noll, of Dauphin co.; S. F. Sherick, Jacob Krider and John Hunsecker of Lebanon co.; Wm. Berry of Perry co.; and Samuel Frantz of York county.

The subscriber, residing at Springville, Mt. Joy Post Office, Lancaster co., Pa., is now prepared to sell the entire right, manufacture and vend this valuable Machine for Townships, Counties, States or Territories, upon reasonable terms.
May, 1852.] JACOB MUMMA, Patentee.

PREMIUM STRAWBERRY "MOYAMENSING."

THIS new and very superb variety raised by G. Schmitz, Esq. near Philadelphia, and to which a special Premium was awarded by the Pennsylvania Horticultural Society, was purchased by the subscriber, and is now after a fair trial of three years, for the first time offered to the public.

It possesses advantages over all others that I have as yet seen, or cultivated—is remarkable for its robust and vigorous growth—perfectly hardy, enduring the extremes of heat and cold, is very productive, producing a greater average of large berries from one plant than any other, and nearly equal in size to the "Hovey's Seedling." Its great merit is its rich and high flavor, in which it excels all others—it is much better adapted for market, (for which purpose I am growing extensively) as its fruit is not so easily injured by carriage. Strong Plants now ready for delivery at \$2 per doz., or \$12 per 100.

JAMES M. TAGE,
Burlington, N. J. Address orders to Henry A. Dreer, Seedsman and Florist, No. 59, Chestnut street, Philadelphia.
April, 1852.

GUANO AND PLASTER.

THE subscribers offer for sale at the lowest market rates,
1000 Tons Dry Patagonia Guano,
500 " Government Peruvian Guano,
500 bbls. Ground Plaster.

The quality of the above is unsurpassed, and can be recommended with confidence to farmers and others in want of the articles. A liberal deduction made to Country Merchants.

ALLEN & NEEDLES,
No. 22 & 23, S. Wharves, First Store above Ches. st., Phila.

THE FRUIT-GROWER'S HAND-BOOK.

Encouraged by the very warm commendations of this work, received alike from experienced Horticulturists and from the wholly inexperienced, the author ventures with some confidence to submit it to the public at large.

Notes of all the important questions on fruit culture asked of the writer during the last ten years, with a thorough research of Pomological works, have contributed to render this volume as complete as possible, in convenient compass.

To the lot-holder who wishes to make the most of a few plants and little room, as well as to the extensive planter who wishes to arrange and cultivate his gardens in the most economical and profitable manner, the Hand Book will be found a useful companion for frequent reference.

Price, FIFTY CENTS. Two copies, post free, for \$1.
Address, WM. G. WARING,
sept. 1851. Boalsburg, Centre co., Pa.

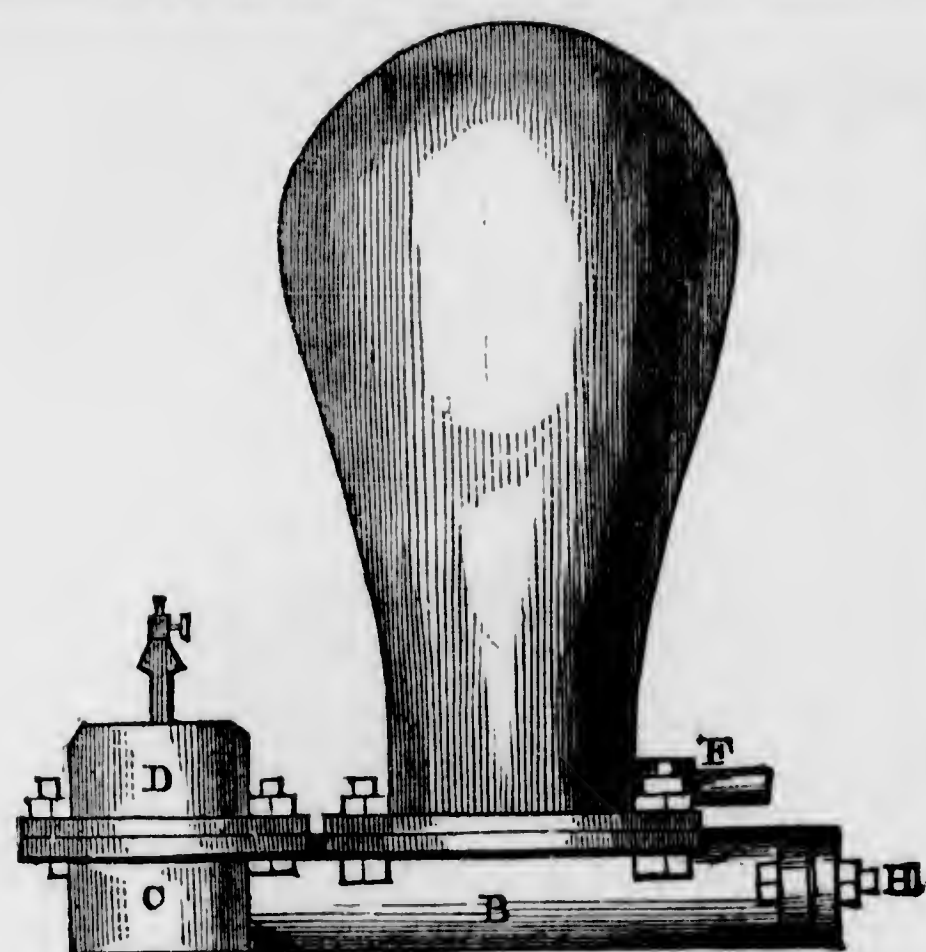
FINE STRAWBERRY PLANTS.

Strawberry Plants of several varieties and fine quality can be had by the hundred or thousand at the low price of \$1 per hundred, by addressing with amount enclosed,

JAMES O'CONNOR,
Safe Harbor, Lancaster co., Pa.
All orders will receive prompt attention. (sept. 1851.)

GUANO.

Peruvian and Patagonia Guano for sale in lots to suit purchasers, by
J. CASSELY & SON,
No. 121, South Water st., a few doors above Dock st., Phila.



A. an air chamber—B. body of ram—C. valve chambers—D. valve—E. coupling for delivery pipe—F. coupling for driving pipe.

J. B. CHICHESTER,

NO. 23, SOUTH EIGHTH STREET, PHILADELPHIA.
AGENT for Birkinbine Patent Improved Hydraulic Ram, Force Pumps, Street Stops, Fire Plugs, and Hydraulic Machinery in general.

The superiority of these Rams over all others is the great amount of water thrown to that wasted, the large size they can be constructed, the durability of them, as well as the small amount of attention and repairs they require—many running at present for 4 and 5 years, without any repair. At the present time there are in the United States, Cuba, Mexico and South America, about 2000 in successful operation.

The town of Naples in the State of New York is supplied with water by one of these Rams, throwing 20,000 gallons a day. Many more could be mentioned if space would permit.

Persons wishing Rams sent to them by measuring the amount of water their brook or spring affords, per minute, the head and fall they can procure, the elevation to be overcome, and distance to be conveyed, can have the proper Ram and Pipe sent them, with directions for putting up.

The expense, in most cases, is smaller than a well and pump.—Letters post-paid, will meet with prompt attention. When desired an experienced person will be sent to put them at a small additional expense. Lead and Iron Pipe for sale. These Rams are warranted in every respect. (Jan. 1852.)

FRUIT AND ORNAMENTAL TREES FOR SALE.

50,000 Peach Trees of one and two years growth, from the bud; 40,000 Apples; 5,000 Cherries; 5,000 Dwarf Pears, each containing all the most esteemed varieties, and of large size. Also, Quinces, Plums, Nectarines, Apricots, Almonds, Grapes, Raspberries, Gooseberries, Currants, Strawberries, &c., &c. 50,000 Silver and Ash-leaved Maple Seedlings of one years growth; 50,000 Apple Seedlings. The above will be sold on the most reasonable terms. Persons residing at the south and west should send their orders early. Catalogues with prices annexed will be sent to all applicants. ISAAC PULLEN,

February, 1852—2 mos.) Hightstown, Mercer Co. N. Jersey.

COTTAGE FURNITURE.

WARWICK & Co., are constantly manufacturing new and appropriate designs of enamelled, painted and Cottage Furniture, of warranted materials and workmanship. Suits of Chamber Furniture consisting of DRESSING BUREAU, BEDSTEAD, WASH-STAND, TOILET TABLE, and FOUR CANE SEAT CHAIRS, as low as \$30 per suit, and upward to \$100, gotten up in the most superb style.

Those who are about furnishing hotels, cottages, or city residences, should call and see this style of furniture, which for cheapness, durability and elegance is far preferable to the old heavy kinds of mahogany, &c.

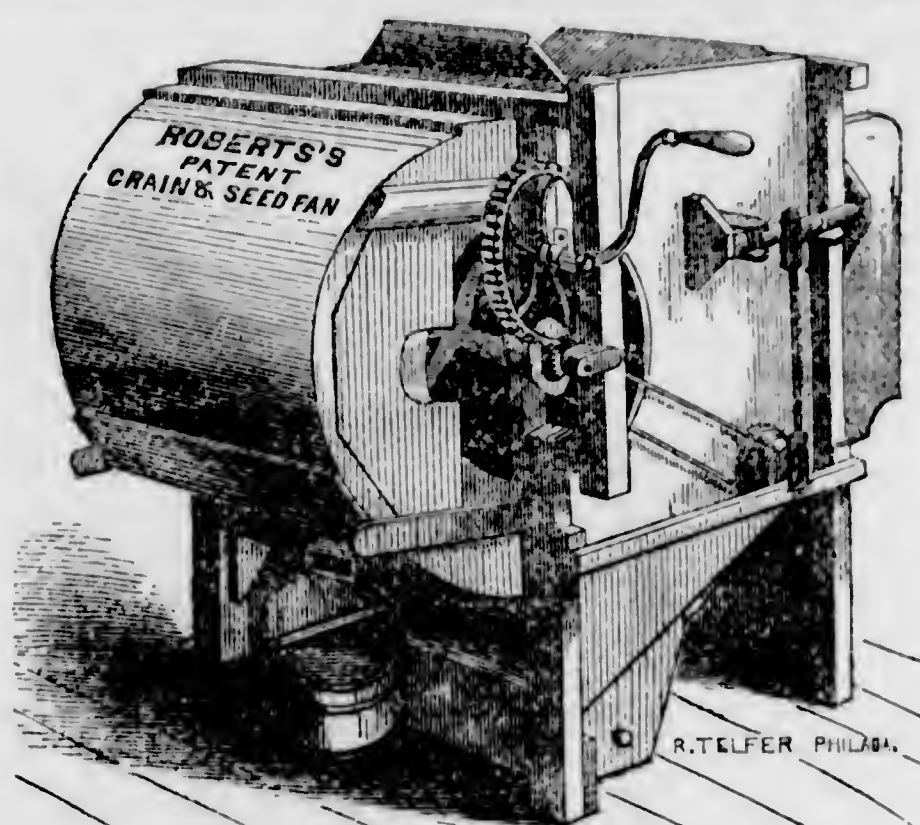
Orders from all parts of the country promptly attended to and carefully packed. WARWICK & CO.,
Warehouses, No. 4 and 6, South Seventh st., between Chestnut & Market streets, Philadelphia. sept.-6m

HENRY A. DREER'S

SEED AND HORTICULTURAL WAREHOUSE,
No. 59, Chesnut st., near 3d, Philadelphia.

Constantly on hand a large and well selected assortment of Garden, Field, Grass and Garden Seeds, Fruit Trees, Grape Vines, Roses, &c.

Horticultural Implements in great variety. Catalogues forwarded on post paid application. (sep.-4t



IMPORTANT TO FARMERS!

JESSE ROBERT'S PATENT UNITED STATES
GRAIN AND SEED FAN.

TO WHICH WAS AWARDED THE
FIRST PREMIUM

At the Pennsylvania Agricultural Fair, after a trial the fairness of which could not be disputed. These Fans, the inventor confidently asserts, are the only ones now in use entirely adequate to the wants of the farmer. The object of the inventor was not directed alone, to the purpose of cleaning grain, but of cleaning it and saving at the same time the farmer the trouble of gathering it from the floor, thus not only avoiding labor, but keeping the grain from the dirt on the floor. In addition to this, these Fans, possess greater advantages than those constructed upon the old plan.—These advantages are as follows:

First. The arrangement is such, that a quick shake can be obtained by turning slowly, thus securing when desired, a less quantity of for small seeds.

Second. When necessary a slow shake can be secured, by rapid turning. This is of immense advantage, as it adapts the fan, to the cleaning of all kinds of seeds.

Third. A new method of adjusting the riddles and screws. This gives the operator the advantage of placing them in any position best adapted to accomplish the purposes of a grain Fan. Every riddle and screen has a separate adjustment, so that each one can be fixed at any angle without the necessity of taking them out.

Fourth. The grain, instead of falling on the floor, as is usually the case, is discharged, by means of a small trough, into the half bushel, or other measure that may be placed under it. By this arrangement the grain is all measured, by the time it is cleaned, thus saving not only labor, but time, and consequently expense, as well as keeping the grain from contact with the dust and dirt on floor. For this reason, the fan, can be put in operation anywhere, with as little trouble as the common fans can be used in a barn floor.

Fifth. The simplicity of their constructions renders them less liable to get out of repair than other mills.

For the above reasons, we confidently recommend our Fans to public patronage. Privileges to manufacture will be granted on reasonable terms. Satisfactory information can be promptly had by addressing post paid, the subscriber at Norristown, Montgomery co., Pa. JESSE ROBERTS.

Norristown, December, 1, 1851.

Life Insurance for Horses, &c.

THE American Live Stock Insurance Company, (Stockholders individually Liable) for the Insurance of Horses, Mules, Pigs, Bulls, Sheep, Cattle, &c., against Fire, Water, Accidents and Disease. Also, upon Stock driven to Eastern markets, or transported South.

JOHN H. FRICK.

General Agent for Pennsylvania, Philadelphia.

REFERENCES:
Wood, Abbott & Co., } Philadelphia.
Truitt, Brother & Co., }
Coates & Brown, }

Agents:

JOHN ZIMMERMAN, Lancaster Pa.
CHARLES F. FRICK, Reading, Pa.
SAMUEL H. TAYLOR, Mauch Chunk, Pa.
Dr. JOHN G. SCOVERN, Veterinary Surgeon,
Examiner for Lancaster County.

May, 1851.)

BERKSHIRE PIGS and South Down Sheep of Pure Blood, for sale by
JAS THORNTON, Jr.
Byberry Philadelphia Co.

COCHIN CHINA FOWLS FOR SALE.

THE subscriber offers for sale a few pairs of his fine stock of COCHIN CHINA FOWLS, of his own importation, warranted pure blood and true to their name. Orders for the same, post-paid, addressed to the subscriber, will receive due attention.

CHARLES SAMPSON, West Roxbury, Mass.

April, 1852—2m

EMERY & COMPANY,

Sole Manufacturers for the United States of the New
York State Agricultural Society's First Premium
RAILROAD HORSE-POWER,

PATENTED BY H. L. EMERY, FEBRUARY 24, 1852.

Manufactory on Hamilton, Liberty and Union streets;
Warehouse and Sale Rooms, Nos. 369 and 371
Broadway, Albany, N. Y.

THE above Horse Powers have been awarded the highest premiums at the Fairs of the New York State Agricultural Society in 1850, and again in 1851; also, the highest Premium at the Michigan State Fair, at Detroit, Mich., in September, 1851, where a majority of the Committee owned and were using Wheeler's Powers on their farms, having purchased them previous to seeing our own: also a Gold Medal at the American Institute, in 1851. It was also exhibited at the State Fairs of Ohio, Maryland and Pennsylvania, and received the highest awards which could be given by the rules of their Societies. In every case, it has been in competition with all endless chain Powers of any note in this country.

Over SIX HUNDRED sets of the above Powers were sold and put in use from June to January last, not one being returned or failed.

To enable the public to distinguish the above Horse Power from all others, we here show its principal, and most important parts, by diagrams and references—beside like diagrams and references of the Rack and Pinion Power, as made by ourselves, Wheelers, and others; and also the Rack and Pinion, with epicycloidal teeth, which has long been successfully used in this vicinity, and which, with our recent improvements, in its adaptation and application to our Horse Power machinery, places it the first on the list of Rack and Pinion Powers.

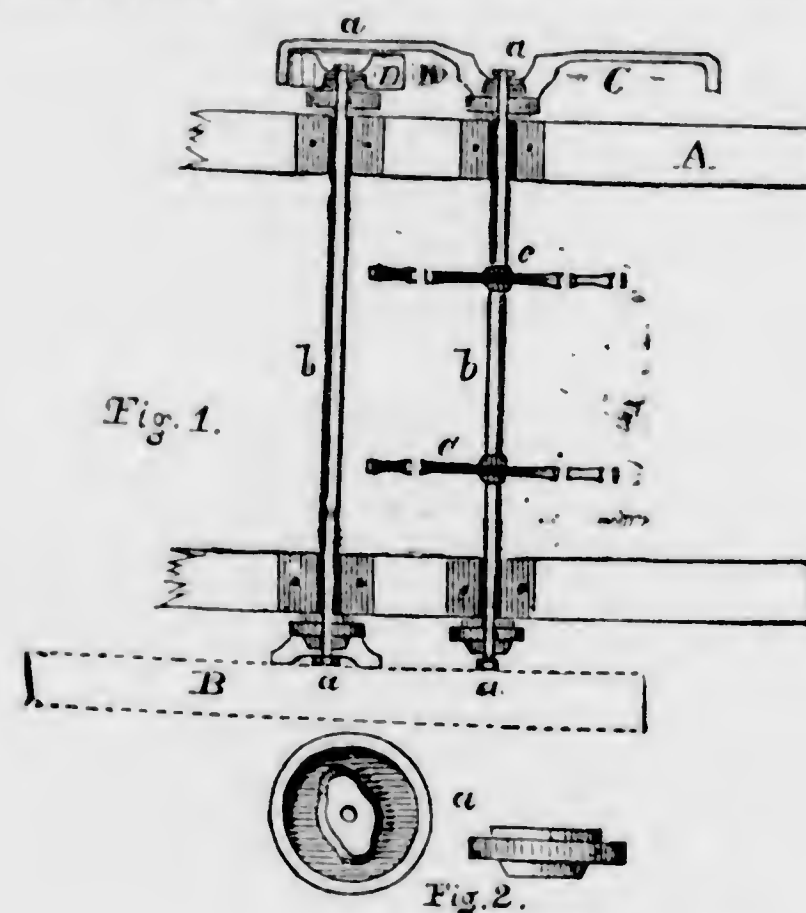


Fig. 1.

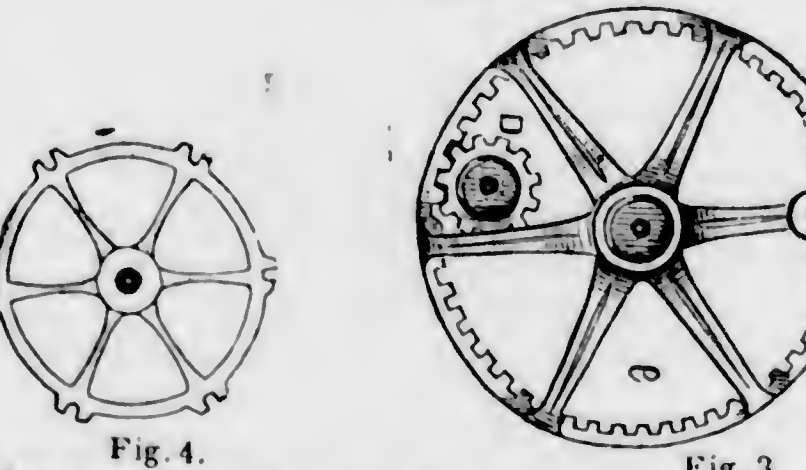


Fig. 4.

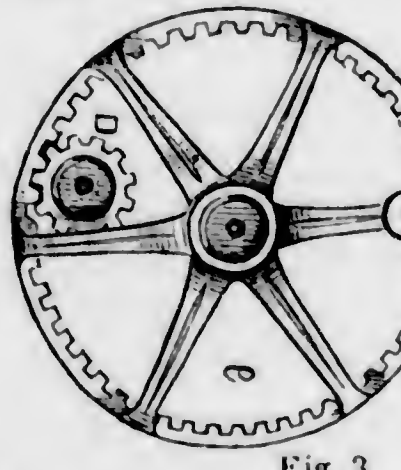


Fig. 3.

Top view of the Running Gear, and a portion of the frame work of H. L. EMERY'S Patent Changeable Railroad Horse Power.

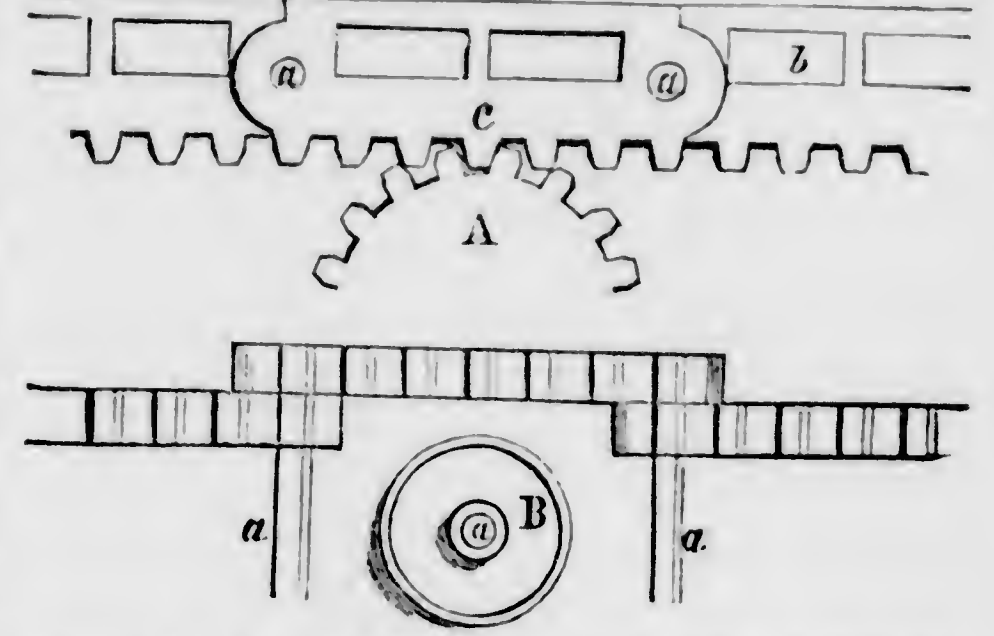
Fig. 1. A.A.—Main sills or timber of the power supporting the shafts.
B.—Band pulley upon one of the shafts.
C.—Pinion or small gear upon the same shaft with pulley.
D.—Converge or internal gear upon the main shaft, and working into and over the pinion.
E.—Main and counter shafts of power.
F.—Reels upon the main shaft, which support the endless flooring in its circuit, and carry the shaft.

a.a.a.a.—Couplings upon the ends of the shafts, fitting all the pulleys and gears.

Fig. 2. Shows a side and edge view, (enlarged,) of the couplings.

Fig. 3. Side view of converge or internal gear and pinion.

Fig. 4. Side view of one of the two reels, c. c., on the main shaft.

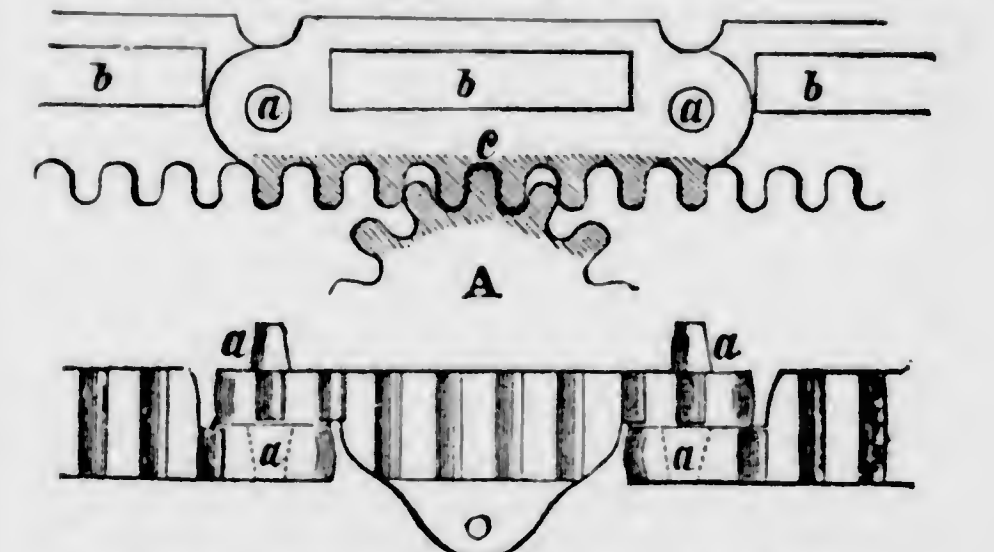


Common Rack and Pinion Power, as manufactured by ourselves, Wheelers and others.

B.—Side view of one of the 72 (or 36 on each side,) small truck or friction wheels, which traverse with the endless flooring—being about 3 1/2 inches diameter.

C.—Side view of the 72 (or 36 on each side,) links or segments of the chain, each of which are six inches long, as seen connected with others. a.a.a.a.—The eyes of the links and small rods crossing the power and extending through the links, and far enough outside to receive the small trucks.

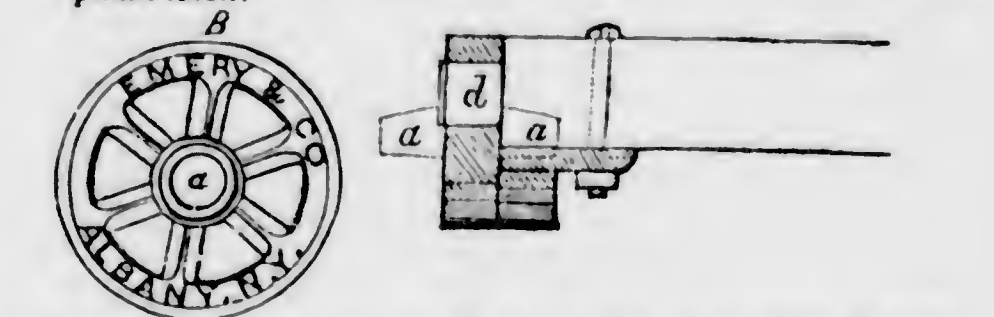
A.—Side view of a section of one of the pinions or small cog wheels, two of which are placed upon the main shaft, and receive the motion and force from the cogs on the links of the chain. This pinion is about four and a half inches diameter, and the band pulley is used upon the same shaft, which for threshing, is four feet diameter. The lower view represents the teeth or cogs, as seen with links inverted.



Emery's Improved Patent Rack and Pinion Power, with Epicycloidal teeth.

C.—Shows a side view of one of the links or sections of the chains of which there are but sixty, or thirty on a side, and are each seven inches long; every alternate link is cast with dovetails, a.a.a.a.a. projecting each side; those on the inside connecting with the other links, while those on the outside receive the truck wheels, thus avoiding the necessity of small shafts, and expense of fitting up. The eyes of the links and truck wheels are cast upon steel chills—making a perfect, and hard smooth surface, which will not wear or break—while the dovetails are sufficiently large and strong to withstand more than the cogs themselves.

The lower edge of each link is widened equal to the face of the pinion, and the cogs made to extend the whole width of the pinion, as shown in the lower cut, representing the link inverted, presenting double the strength and driving surface, as shown in the last kind; every alternate link is confined to the plank flooring by a small screw bolt passing through a flange upon the inside of the link, and under the plank itself.



A.—Shows a section of the pinion, which is a little larger in diameter than the last—the teeth of which are epicycloidal in form—as are those on the links working into them—which is acknowledged by all mechanics and engineers to be the strongest and most perfect form of teeth and works with less friction and wear, as the driving surfaces present to each

other a rolling, instead of sliding friction; this kind of teeth, on account of their rounded form, work much deeper into each other, and have little or no inclination to lift out of gear.

The last cut shows the construction of the truck wheels, which are 1 1/2 inches larger in diameter, and revolve on larger circles at the ends of the power—giving them an advantage over the smaller wheels. A section of a link is shown with the end of the flooring attached; these planks are all one inch wider, and consequently wear up by use much closer, before bending or breaking under the weight of the animals. As a Rack and Pinion Power, the latter has every advantage over the common kind in use; is manufactured at a less cost; is equally strong and durable, and is more easily handled, as its weight is some two hundred pounds less.

Either of the above kinds of powers are offered to the public, each upon its own merit, with a full warranty as to workmanship, material and operation, (and with a guarantee of right of using in all parts of the United States,) subject to be returned within three months—and purchase money refunded. For prices, &c., see Illustrated Catalogue, furnished gratis on application, or by mail.

The first on the list is the highest in cost, and is found preferable in all cases, and under all circumstances. The power of the revolving platform being applied to the main shaft, by means of reels with larger diameters than the pinions used in the Rack and Pinion Powers, the stress upon the several parts is in no way as great—and the liability of wear or breakage, from use or accident, is removed. The whole of the gearing consists of less than one seventh the number of cogs in the Rack and Pinion Power; and these are wholly removed from under the horses to the outside of the power—free from dirt, dust, &c., and always easily kept in order or cleaned, which is an advantage over all Rack and Pinion Powers. This power has also the advantage of the changing of force and velocity to accommodate it to any variety of work, without any additional cost or danger to the gearing or other parts. When the main shaft runs but fifty six revolutions per minute, the diameters of the gears are such as to increase or decrease the velocity to two hundred and twenty-four, or as slow as fourteen revolutions per minute, when the animal, (either horses or oxen,) walk but two miles per hour—being about two thirds the travel which is necessary with the Rack and Pinion Power, to produce the same effect. This last fact is one of its principal features, and of the greatest importance to the farmer. The gearing, as well as pulleys and couplings, all agree, and can instantly be transposed—each to each, and side to side. In this power the centers of motion of the gears are always in the same position to each other—requiring no guard or binding track over the chain above the pinions, to keep the gears together, as is absolutely necessary with all rack powers, and which serve to check the force of the power; and as the driving force of the teeth on the rack become worn off, the loss of force increases, until they eventually stop, break, or slip by each other. The length of the sections or links of the chain, as also the width of the planks of the flooring, are same as in the Improved Rack Power last described. With the above advantages, together with the epicycloidal form of teeth, adopted this season in its construction, the superiority of this power is readily seen.

This power is admirably adapted for driving Threshing Machines, Circular Saws, Cotton Gins, as also Machine Shops, Elevators, Ferry Boats, Discharging and Loading vessels, Pile driving, Cross cut sawing, Pumping, Grinding Grain, Churning Butter, Cutting Hay and Stalks, Shelling Corn, Grinding Apples, &c. The angle of elevation necessary to operate this power, is never greater, but often less than either of the others here described, and which is inside of one and a half inches to the foot, with horses weighing 1000 pounds each, and without any harness. It has also an admirable arrangement for adjusting and tightening the chain, not possessed by either of the others—entirely within the power and independent of the band and pulleys, and does not require to be changed, when gears and pulleys may be. The pulley used for threshing, with this power, is but three feet diameter, to effect the same as a four feet wheel with the rack and pinion Power.

In all cases the shafting of all machinery manufactured by us is made to run in Babbitted Boxes, they being the most durable and perfect box in use—and not generally used by other manufacturers. Albany, New York, April, 1852—3m

1,000 AGENTS WANTED.

THE life of Louis Kossuth, Governor of Hungary, with notices of the distinguished Men and Scenes of the Hungarian Revolution. To which is added an appendix, containing Kossuth's Address to the People of the United States; and the most important of the addresses, letters and speeches of the great Magyar Chief. By P. C. Steadley, author of "Life of the Empress Josephine," "Life of Lafayette," etc., with an introduction by Horace Greeley. In one elegant 12 mo. volume of 461 pp., with an accurate steel Portrait. Price \$1.25.

* * * The publishers confidently believe that from the abundant materials in the possession of the author, together with his well known ability, that his Biography of the Great Hungarian Chief will not only be complete in itself, but well worthy to be ranked with the other popular productions of his pen.

N. B.—Agents wanted in every county in the United States, (not already occupied,) to sell the above popular work. It is believed that almost every reading family will be glad of the opportunity of possessing the Life and Speeches of the noble Hungarian. Such is the present indication from the unparalleled sale of the work.

Address, DERBY & MILLER,
Publishers of Popular Books, Auburn, N. Y.

March, 1852.

HIGHLY IMPROVED ESTATES AND VALUABLE TIMBER LAND,

On Lower James River, For Sale.

THE undersigned prevented by engagements, requiring his undivided attention elsewhere, from residing on his estate, will sell publicly, (unless previously sold privately, of which due notice will be given,) before the Bollingbrook Hotel, in the city of Petersburg, Virginia, at 11 o'clock, on Wednesday, the 26th day of May next, without reserve or regard to weather, that valuable body of highly improved arable and heavily timbered land, extending up the north side of James river, from the Chickahomony river, in the county of Charles City, Virginia, about 5 miles, well known under the general designation of SANDY POINT. This estate lies 32 miles below Petersburg, 45 miles below Richmond, and about 65 above Norfolk, in what is justly considered the finest and most extensive grain growing region of Virginia, and as healthy as any on tide water. Spring and well water abundant and good. The whole tract contains 4,454 acres of unsurpassed natural quality, of which 2,180 have been thrice limed, and are now in a high and successful state of cultivation, upon the five field rotation, with more than 500 acres well set in clover. The balance chiefly in wood and timber, embracing a body of some of the best timbered land in Eastern Virginia, convenient to good navigation. Marl abounds on the river, and Stone Lime of excellent quality is 6 1-2 cents per bushel.

The sub divisions are as follows—

THE NECK—contains 984 acres, 551 limed, clovered, and in a high state of cultivation; 168 in wood and timber, and 264 meadow or marsh land well meadowed and reclaimable at small expense. A valuable winter Fishery belongs to this farm. BUILDINGS—A small new frame dwelling, smoke house, negro houses, stable and large barn, with stationary horse power and shelter.

LOWER TEDINGTON—contains 534 acres, 550 limed, clovered, &c., 232 principally in wood and timber, and 31 in reclaimable meadow. BUILDINGS—A new frame dwelling with 4 rooms and a passage, negro houses, a large and well arranged barn, with stationary horse power and shelter; two large stables for horses, oxen, &c., extensive hay house and spacious and well arranged buildings, for the protection of wagons, carts and all farming utensils, &c.

UPPER TEDINGTON—the Family Residence. Contains 757 acres, 532 limed, clovered, &c., 229 principally in wood and timber, and 14 in reclaimable meadow. BUILDINGS—A commodious wooden dwelling, large two storied kitchen and laundry, ice house, new and spacious carriage house and stable, servants' houses, &c. &c. Also, a new Barn, part wood and part brick, with 4 doors, 80 by 38 feet, and a wing 30 by 50 feet. With bone, plaster, saw and grist mills. In the barn there is all the necessary machinery for threshing and winnowing wheat, shelling and grinding corn and sawing timber, all effectually driven by a 16 horse power stationary engine in complete order and condition. A large orchard stocked with every variety of fruit, in successful bearing is attached to this farm.

UPPER QUARTER—contains 836 acres, 546 limed, clovered, &c., 290 principally in wood and timber. BUILDINGS—A small frame dwelling, kitchen, laundry, smoke house, negro houses, barn with stationary horse power and shelter and stable.

Each of the above four farms has a river front, with landings, at which wharves can be erected cheaply and conveniently if desired. To "Upper Tedington," within 100 feet of the barn, belongs a new, commodious and substantial wharf, at which the largest size vessels lie, steamers, sea and river, pass twice a day, frequently stopping, plying between Petersburg, Richmond, Norfolk, Baltimore, Philadelphia and New York.

In addition to the above described four farms and timber and wood land thereto attached, are the following valuable timber and wood lots eligibly situated, convenient to navigation, which will make farms as desirable and productive as those above described:

No. 1, containing 215 acres; No. 2, 193 acres; No. 3, 244 acres; No. 4, 223 acres; and No. 5, 147 acres.

Mr. Nicol, residing at Sandy Point, will be prepared to show the property in my absence, and a particular and thorough examination is invited at any time previous to the day of sale. Accurate plats of each sub-division have been prepared and are ready for inspection. Possession of the timbered lands given immediately after the sale; of the farms at the end of the year, with the privilege previously, of fallowing and seeding wheat.

TERMS:—For the farms, one-fifth cash, the balance in five equal annual instalments from the 1st January, 1853. For the timbered lands, one-third cash, and the balance in three equal annual instalments from day of sale. The credit payments to bear interest and to be secured by deeds and bonds, or notes with approved securities or endorsers.

Petersburg, Virginia, February, 1852.

WM. PANNILL & SONS, Auct'rs.

ALDERNEY AND IMPROVED SHORT HORN CATTLE.

THREE thorough bred Alderney BULLS, from nine to eleven months old, raised from the choicest imported stock. Also, two thorough bred young short horn Bulls, ten months old, raised on the farm of Mr. T. F. Remington, near Philadelphia, and for sale by AARON CLEMENT, Agent for the purchase and sale of improved stock, Cedar street, above 9th street, Philadelphia. February 2d, 1852.



VOL. 2.

LANCASTER, PA. JUNE, 1852.

NO. 3.

THE FARM JOURNAL.

S. S. HALDEMAN, } EDITORS.
A. M. SPANGLER, }

The Next State Fair.

We are much gratified in being able to announce that the Executive Committee of the State Agricultural Society have accepted the proposition of the citizens of Lancaster, and determined to hold the second annual State Agricultural Exhibition in the vicinity of our city. A more suitable place could not have been selected, and we have no doubt that the choice will give general satisfaction.

The site having been agreed upon, the next duty devolving upon the friends of the Society and of Agriculture generally, is to sound the note of preparation, and get things ready for a grand display. The annual Exhibition of the Society being a matter of general importance, should awaken a feeling of general interest. The earnest determination of every heart and the untiring energy of every hand should be directed to the laudable object of rendering it, not merely the greatest Exhibition of the kind ever held in Pennsylvania, but equal to any ever held in the United States. The character and standing of our Commonwealth demand this, and State pride should respond to the demand.

A laudable spirit of emulation will, we trust, pervade every section of the State—emulation that cannot fail to be a source of pure gratification and enjoyment to all who strive to produce something that will aid the advancement of the laborious calling of the farmer. There is implanted in every true heart, and to awaken this praiseworthy feeling is one of the principal objects contemplated by the State Society. The field of competition is thrown open to all. By means of such annual gatherings the knowledge of our most successful farmers becomes common stock—the property of all. He who has succeeded in producing a better crop of wheat or corn than his neighbor—who

VOL II—C.

by study and observation has learned to understand and practically apply the great fundamental principles of husbandry, and by repeated experiments, demonstrated the truthfulness of his investigation and research, has his reward not merely in abundance himself, but in the consciousness that he has been laboring for the good of his fellows also. Such men, actuated by such principles, are those who generally stand foremost in enterprises of this kind, and who by their noble example stimulate all within their influence to renewed exertion, and thus pave the way for abundance and happiness to thousands.

While, therefore, we are led to hope and believe that at the coming Exhibition every county in the commonwealth will be well represented; we look forward with no less anxiety to the position which Lancaster will occupy in the contest with her neighbors. With an almost world-wide reputation as an agricultural county—with the Exhibition at her very doors—with all the resources within herself necessary to enable her to prove that she is worthy the proud distinction so generously conferred upon her, will not her farmers, mechanics and artisans strive with all their energies to maintain her high character? Will not her daughters prove that in all that relates to household economy they are neat, tasteful and industrious? Will not every one, whatever his profession, contribute his mite to swell the display, so that every department of useful art shall be appropriately represented?

Fancy Farmers.

The leading object with the large majority of farmers, is, to make their profession profitable. Occasionally we meet with one who cultivates his land rather as a matter of relaxation and pastime, than with a desire to increase his means; but such cases are exceptions. If then, farming is, as a general thing, pursued with an eye to profit, it becomes a matter of serious inquiry how this object may be most effectually accomplished. One of the secrets which lies at the very foundation of successful and profitable husbandry, is strict method in all the oper-

ations of the farm, coupled with untiring energy and proper economy. The methodical tiller of the soil—he who carefully matures his plans before putting them into practice, weighing well the chances of profit or loss—who calculates as nearly as may be, the results likely to follow the adoption of a particular system; or in other words, the farmer who conducts his daily operations *understandingly*, he it is who has fallen upon the pathway to success. It is amusing at times to listen to the self-satisfied projects of men, who having become wearied of other pursuits, look to farming as the last hope—the only calling which promises reward when those already tried have failed. They speak of it with all the confidence and assurance of men whose whole lives have been spent in tilling the soil—promising to themselves and their friends such results as veteran farmers never dared look for. With them, farming is the business of a day. They talk of engaging in it, as men talk of putting on a new coat, and without further reflection invest their money in lands—plunge headlong into the mazes of agriculture and in a few years wake up to the mortifying consciousness of having most egregiously mistaken their calling. Such is the brief history of thousands of foolish men—men who have never thought it worth while to inquire whether any thing more was requisite to constitute them successful farmers, than a certain number of acres of land, and the necessary amount of stock and implements.

It is to such fancy farmers as these that agricultural literature owes many of its opponents. Possessed of neither practical skill or judgment; with a shallow smattering of book knowledge, their inflated boastings of what they intend doing in the first place, their spasmodic efforts to make good their boastings in the second place, and their complete failure in the third place, disgusts the practical farmer, and leads him to undervalue the advantages which he by combining the scientific with the practical, might realize. To those who are desirous of adopting farming as a profession, we beg leave to say, ponder the subject well before you undertake it. Discard the idea that every man is fitted to be a farmer. If you are of methodical habits—economical—industrious and persevering; if you are possessed of an investigating spirit, anxious to know the why and wherefore—the cause and effect of things transpiring around you daily—if you feel that having put your hand to the plow you will not turn back again, then farming may suit you. If you possess not these qualifications, take our advice and turn your eye in some other direction, for there is no pursuit in which an indolent, pleasure-seeking, unmethodical, merely theoretical man is so little likely to succeed, as that of agriculture.

The importation of Guano into Great Britain amounts to ten millions of dollars annually.

Organic and Inorganic Substances.

The terms *organic* and *inorganic* occur so frequently in agricultural publications, that a proper understanding of the precise sense in which they are used agriculturally, may be of service to some of our readers.

All forms of matter may be divided into two great classes or departments, organic and inorganic. Under the head of organic matter, is included "all such bodies as possess organs, on the action of which depend their growth and perfection." Thus the bodies of all living animals as well as their dead carcasses—all plants and their remains are to be regarded as organic matter, having once been *the seat of life*.—Any thing produced by the agency of living matter, properly belongs to this class, whether it exhibits a kind of *structure*, as in the fibres of plants and the muscles of the animal, or whether, as in the bodies of plants and animals which have undergone decay, and where no evidences of structure remain. The changes which various animal and vegetable substances undergo, when submitted to different processes, such as burning, distillation, fermentation, &c., do not destroy their character as organic matter. Under the head of *inorganic* matter is included "the solid rocks and soils, the atmosphere, the waters of the seas and oceans; everything which neither is nor has been the *seat of life*."

By a proper understanding of these terms, much that is frequently difficult of comprehension to the farmer unskilled in scientific terms, will at once become perfectly plain. But in attempting thus to render their true meaning as clear as is possible in the brief definitions we have given, we have no desire that inquiry should rest here. Every agriculturist should understand, not only the difference between organic and inorganic matter; but he, should be able to comprehend fully, not only what are the constituent parts of animal substances, but of every plant he cultivates. If this were the case, who is prepared to estimate the degree of perfection to which the science of agriculture might be brought! And yet, how few there are, who are willing to devote a single hour or even half an hour of each day to the acquisition of such invaluable knowledge.

Curculio or Plum Weevil.

So formidable have become the ravages of this insect, that many who formerly cultivated the different varieties of plums, apricots, &c., have been compelled to abandon them entirely. All the skill and ingenuity of our most practical horticulturists has been expended in efforts to exterminate this pest, but thus far the curculio has triumphed. We should not however despair of finally overcoming this foe to the fruit grower. This can be done only by repeated experiments, and unwearied efforts on the part of those who have suffered or are likely to suffer from their attacks. We are led to believe that the cause of the rapid

increase of the curculio is attributable less to the difficulty of destroying it, than to the fact that comparatively few persons are familiar with its appearance and still fewer with its destructive habits.

Every spring their plum and apricot trees give promise of an abundant yield of fruit. Little suspecting the enemy that is lying in wait for it, they use no precautions, and in a few weeks after blossoming, have the mortification of beholding the young fruit rapidly decaying and falling to the ground. The mystery is inexplicable. The tree is thrifty and vigorous, the exposure excellent, and every thing as it should be, yet the fruit perishes before they have an opportunity of knowing either its size or quality. We believe that if a knowledge of the appearance and habits of this insect were more thoroughly diffused, we should eventually succeed in devising some plan by which to exterminate it. For the purpose of aiding those who may not have seen the curculio we give a cut of it, with a description and manner of attacking fruit, from Dr. Harris' excellent work.



"I have found these beetles as early as the thirtieth of March, and as late as the tenth of June, and at various intermediate times, according with the forwardness or backwardness of vegetation in the spring, and have frequently caught them flying in the middle of the day. They are from 3-20th to 1-5th of an inch long, exclusive of the curved snout, which is rather longer than the thorax, and is bent under the breast, between the fore legs, when at rest.

Their color is a dark brown, variegated with spots of white, ochre-yellow, and black. The thorax is uneven: the wing-covers have several short ridges upon them, those on the middle of the back forming two considerable humps, of a black color, behind which there is a wide band of ochre-yellow and white.—Each of the thighs has two little teeth on the under side. They begin to sting the plums as soon as the fruit is set, and, as some say, continue their operations till the first of August. After making a suitable puncture with their snouts, they lay one egg in each plum thus stung, and go over the fruit on the tree in this way until their store is exhausted; so that where those insects abound, not a plum will escape being punctured. The irritation arising from these punctures, and from the gnawings of the grubs after they are hatched, causes the young fruit to become gummy, diseased, and finally to drop off before it is ripe. Meanwhile the grub comes to its growth, and, immediately after the fruit falls, burrows into the ground. This may occur at various times between the middle of June and of August; and, in the space of a little more than three weeks afterwards, the insect completes its transformations, and comes out of the ground in beetle form.

The following among other remedies that have been suggested, may be found useful in checking the ravages of the plum-weevil. Let the trees be briskly shaken or suddenly jarred every morning and evening during the time that the insects appear in the beetle form, and are engaged in laying their eggs.—When thus disturbed they contract their legs and fall; and, as they do not immediately attempt to fly or crawl away, they may be caught in a sheet spread under the tree, from which they should be gathered

into a large wide-mouthed bottle or other tight vessel, and be thrown into the fire. All the fallen wormy plums should be immediately gathered, and, after they are boiled or steamed, to kill the enclosed grubs, they may be given as food to swine."

When should Asparagus be Cut?

Ask the market gardener, and he will tell you, that it should be cut just when the crowns are protruding from the surface of the ground, or have risen above it two or three inches; and as near to the root as possible. Ask the majority of purchasers, (who generally give sight the preference over taste, and who have never perhaps had the opportunity of testing the merits of the green kind,) and they will coincide with the gardener. The gardener pursues this plan because it enables him to offer a really beautiful vegetable, (white from top to bottom) and very *saleable*. But ask the man who gives taste the preference over sight, and he will tell you that asparagus should never be cut but very little below the surface of the ground. During the present season we have sent a considerable quantity to market. Consulting public fancy, we endeavored to have it as nicely bleached as possible, and accordingly cut it as much below the surface as we could. But for our own table we permit it to grow to a height of six or seven inches above ground, giving the stems sufficient exposure to the atmosphere to become green, and then cut it off even with the surface. The result is, that the stems are wholly divested of that woody fibrous matter, so characteristic of the white clear portions—they cook tender and possess the true asparagus flavor. Asparagus is fit for the table so long as the crown has not expanded. If any of our readers are skeptical, let them try it.

Smut in Wheat.

MR. EDITOR: In looking over some of the back numbers of the Journal, I observed an article concerning smut in wheat. While the remedy may be very effectual, I think it altogether too troublesome. We have a remedy in our county, which I have never known to fail, although its merit has been tested by a great many farmers as well as myself.

For five bushels of wheat, take one fourth of a pound of blue vitrol, and as much water as will dissolve it. Steep the wheat in this solution, or spread it on the barn floor and with a brush or wisp of straw, sprinkle the solution over it. Rake it thoroughly, so that every grain is moistened. Let it lay in this way for twelve hours, and it will be ready to sow or drill as well as if it had never been moistened. If any of your readers doubt the efficacy of this remedy, they can satisfy themselves by testing it on a small scale.

PHILIP HUSBAND.

Somerset, Pa., May, 1852.

Communications.

For the Farm Journal.

Salt and Lime Mixture--Decomposition of Muck etc.

Under the above caption there will be found in the May number of 1852, at page 60, of "The Working Farmer," published at New York, and edited by Prof. J. J. Mapes, an article recommending and giving directions for the manufacture of the "Salt and Lime Mixture," which I believe was originated by the learned professor. He says, "Common Salt is composed of Chlorine and Soda, and when mixed with Caustic Lime, is changed to Chloride of Lime, and Carbonate of Soda."

"The Lime having a stronger affinity for Chlorine than for Soda,* combines with it, forming Chloride of Lime; the soda being set free takes carbonic acid from the atmosphere and becomes Carbonate of Soda. This rationale may be objected to by Chemists as not strictly in accordance with the facts as to the original composition of the Salt, &c., but they will all agree as to the result, which is what the farmer requires to know, and we have therefore adopted this simple rationale."

Without agreeing or disagreeing with the learned professor, as to the original composition of the salt (the which is a mooted question amongst Chemists, and is likely so to continue) in order to be better understood, I will give both the prevalent theories, and leave the reader to choose for himself between them.

Chlorine Hydrogen.	Oxygen Sodium.
Chlorohydric Acid.	Soda.
Chlorohydrate of the Oxide of Sodium.	
Oxygen Hydrogen.	Chlorine Sodium.
Water.	Chloride of Sodium.
Chloride of Sodium dissolved in water.	

By these formula the reader will perceive, that all Chemists agree as to the constituents and their relative proportions as found in common salt, and only disagree as to the manner in which they are arranged. Some contend that the Oxygen of the soda combines with the Hydrogen of the muriatic acid and forms water, and that the Chlorine combines with the Sodium and forms a Chloride. Others contend that the muriatic acid is not decomposed but combines with the metallic oxide and forms a true salt.

As to this mooted question, I do not intend further to discuss it, and will dismiss it, by merely saying that strong arguments can be brought in support of

*Lime has no affinity, (properly speaking) for Soda. They are bases, and both prefer the negative pole. Either will form a 'tertium quid' with an acid, but when mixed they do not form a body, the chemical action of which differs from either of the ingredients.

either side of the question, and that for my own part I do not coincide with the supporters of either.

The theory that I have adopted is represented by the following formula:

Chlorine Hydrogen.	Oxygen Sodium.
Chlorohydric Acid	Soda.
Chlorine, Hydrogen, Oxygen, Sodium,	form Chloroxide of Hydrogen and Sodium.

I believe the result of the mixture of muriatic acid with Soda to be a compound in which neither soda nor water nor Chlorohydric acid exist as such, but that the Hydrogen and Oxygen are present in the proportions capable of forming water, in the same way that they enter into the composition of organic bodies.

But that any such Chemical changes will take place as described by the learned profession, it is my purpose to controvert.

Chlorine takes rank next to oxygen in the scale of Electro-negative bodies, and Sodium as regards Chlorine is more electro-positive than calcium, wherefore unless it be an exception on mixing the solution of Muriate of Soda or Chlorohydrate of the Oxide of Sodium, or if you prefer, the Chloride of Sodium in solution in water* with the Oxide of Calcium no chemical change should be expected.

But to bring the matter to a test let us try the experiment. Take a wine glass and put into it a portion of lime water, which is a solution of the oxide of Calcium, add to this a portion of common salt in solution, and the two will remain suspended in the water, without any perceptible change. But says the learned professor, the soda will absorb carbonic acid from the atmosphere and become Carbonate of Soda. Not to wait this tedious process of absorption, take a glass tube and exhale your breath through it into this liquid containing the common salt and the lime. The liquid will immediately become turbid and the precipitate will be found to be Carbonate of Lime, and the Muriate of Soda, or common salt, may be obtained by evaporation, with not so much as a trace of lime in it.

And again, let the experimenter take a wine glass and put into it a small quantity of the solution of Muriate of Lime, to this let him add a solution of Carbonate of Soda, and he will have a precipitate which will be found to be Carbonate of Lime, and the Muriate of Soda will remain in solution.

This latter is an example of double elective attraction, or complex affinity.

Carbonate of Soda being mixed with Muriate of Lime. } forms { Carbonate of Lime and Muriate of Soda.

And again let the operator to a solution of Muriate of Lime add Soda, and the result will be Muriate

*Or, as I would call it, the Chloroxide of Hydrogen and Sodium

of Soda and Lime. From these experiments we learn that Lime has a greater affinity for Carbonic acid, than Soda has, that Soda has more affinity for Muriatic acid than Lime has, and that Soda has more affinity for Muriatic acid than it has for Carbonic acid. That the sum of the divellent affinities is greater than the sum of the quiescent affinities, and therefore decomposition must take place—and that whenever such a state of things exists, there will be an interchange of constituents.

If such is the case, the Carbonic acid of the atmosphere in the learned Professor's process would go to lime and not to the soda. If a solution of common salt be poured on quick lime, there will be no change other than that the lime will deprive it of a portion of water, and if the mixture be turned over during two weeks, to expose it to the atmosphere (as is recommended in the same article) the result will be that a portion of the lime will be carbonated, and consequently less energetic when applied to the land.

I can easily see that this process, if it would hold good in practice, would be of immense benefit to the manufacturers of Carbonate of Soda, and save them untold amounts of outlay in the purchase of Sulphuric acid; and away with the necessity of calcination with Charcoal; in other words, that it would make a revolution in the *modus operandi*. But to the agriculturist I cannot see its value; of either of the original compounds would be of as much, if not more value to him before, as after the proposed chemical change was affected, and he would have only his labour for his pains.

G. BLIGHT BROWNE.

Greynedd township, Montgomery co., Pa.

Translated for the Farm Journal.

Agricultural Chemistry, No. 10.

But it is not merely by the application of manure that the soil is to be replenished with matters suited for the support of vegetation, but likewise by the decomposition of the soil itself, which is greatly promoted and facilitated by fallowing the land. Formerly, naked fallowing was more commonly practised than it is at present. It was resorted to regularly every third year in course, with the design of permitting the land to rest and recover strength for future crops. Naked fallowing consisted in ploughing the land thoroughly three or four times at short intervals, during the Summer, sometimes with and sometimes without the application of manure. That land so treated will soon, if not manured, produce increased crops, results from the fact that the oxygen of the atmosphere attacks all the substances with which it comes in contact, and the carbonic acid it produces co-operates with it, by rendering many ingredients of the soil more readily soluble. Thus the decomposition of solid substances proceeds regularly and constantly, though slowly; and a portion of those

decomposed substances is annually absorbed and appropriated by the crops grown on the land. Excessive heat and cold also promote the requisite decomposition of the soil. Frost serves to disintegrate even the smaller particles of minerals; and thus, when oxygen and carbonic acid have acted thereon from year to year, new surfaces and fresh points of attack become exposed and the process of disintegration is renewed. Heat operates in a different manner, but with the same beneficial results. It expands all bodies, whereby they become more fully exposed to the action of oxygen and carbonic acid. In addition to this, during a period of protracted heat accompanied by moisture, chemical action is increased, and the process of decomposition goes on with accelerated rapidity. It is this decomposition and disintegration of the soil which is promoted by fallowing, and its effects are exhibited in the improved crops which are produced after even a naked fallow. But, notwithstanding this manifest improvement of the soil, it was found that the product is greatly increased when manuring is combined with fallowing; and as increased consumption rendered an increase of crops desirable, and experience showed that the manure applied might be made available at once, it became customary to cultivate various plants in those fields. Thus the practice and system of cultivating what are called fallow crops, was introduced. Under this system the land is manured in the winter and spring, and the cultivation of the crop at regular intervals, is substituted in place of the ordinary fallow ploughing—whereby the decomposition of the manure and the disintegration of the soil are alike promoted and secured. It was further discovered that larger quantities of manure might be thus provided and applied, because more food was produced and a larger stock of cattle could consequently be supported. Thus the entire scale of agricultural operations became extended. Though the system of naked fallows has in consequence disappeared from practical culture, we should still be impressed with the importance of its main and distinguishing feature—the frequent and thorough stirring of the soil, for facilitating and promoting its disintegration and decomposition, the benefits of which were never more clearly demonstrated than by the fallow system. Those benefits result from the following principles: A great portion of the stones in the soil is composed of alumina with various combinations of silicic acid with potash, lime, soda, iron and manganese. These stones having become disintegrated furnished the materials for the clay of the soil, and by the further decomposition of the clay, the alimental substances it contains, and likewise the silicic acid, are rendered soluble and available by plants. An exhaustion of the matters contained in the clay, is certainly supposable; but its decomposition proceeds so slowly, and the quantity annually with-

drawn is comparatively so inconsiderable, that thousands of years would be required to render the loss apparent. Hence it follows that the clay must be regarded as the permanent source of the important alimental substances required by plants. The means to be used for rendering this source active, are manure and tillage. And on these considerations, also, is based the principle that heavy clay soils require more frequent and more thorough tillage than sandy soils. Hence also, the obvious advantage of ploughing such land in the fall, as it is thereby enabled to absorb more water, and is more fully exposed to the action of frost. Equally important, likewise, is the stirring of the soil during summer, because, by the influence of moisture and heat the decomposition of the soil is greatly facilitated. The more rapidly this decomposition proceeds, and the more thoroughly it is effected, the more richly will the soil become stored with soluble ingredients which operate as fertilizers. Decomposition, however, may also be promoted by artificial means—as for example, in the case of a clay soil, by the application of fresh burnt lime.

Finally, we have yet to consider how the alimentary ingredients of the soil may be most advantageously withdrawn, and so appropriated that the particular crops which we desire to cultivate, may be produced during the longest period, in greatest quantity and perfection, and without requiring renovation by the application of manure. This is to be accomplished by a rational system of *rotation of crops*, judiciously adapted to the soil and the climate. The chief principles on which such a system is based are the following: The various cultivated plants, in general, require the same alimentary substances, merely in different quantities. Thus, for instance, one species requires more potash, a second more lime, and a third more silica. One species again requires more phosphoric acid than another, &c., &c. Now, if within a given period the particular crops cultivated have withdrawn from the soil, its supplies of that particular pabulum, or of those specific alimentary matters which are essential to its perfect growth and development, it is evident that another crop of the same plant, or of another species requiring the same elements in like abundance, cannot thrive properly, if it follow in immediate succession, unless, the soil contain those elements naturally in great superabundance, or they have been artificially supplied, because in all ordinary cases a considerable lapse of time is required to enable the soil to provide itself again with the necessary stores of those elements, by the natural processes of disintegration and decomposition—a longer period, in fact, than usually intervenes between two consecutive crops. Now, if the deficient ingredients be not artificially supplied, in the shape of manures, fertilizers or stimulants, there remains no alternative but to allow the soil time

enough to recover them by the gradual operation of natural causes. Meanwhile, however, the land may be profitably occupied by crops requiring other and different elementary substances, such as the soil yet contains in sufficient abundance. Thus the great waste of time and labor incident to a system of naked fallowing, may be obviated by adopting a regular and rational system of rotation. But the decomposition of the elements of the soil is promoted, not only by selecting for cultivation such crops as require a different aliment from that needed and withdrawn by those preceding, but also by choosing such as require tillage during their growth. In a rotation of cultivated crops, therefore, we must not only be careful to select plants requiring ingredients different from those taken up by the preceding crop, but see that they are such as will secure the proper tillage of the soil during the period they occupy the land, and thus promote the due disintegration and decomposition of the soil. But in a rotation of crops another important point, besides, must be kept in view: namely, the different degrees of vegetative power possessed by plants. The tenderest plants, and such as have the smallest power of assimilation, or of absorption by their roots, must be enabled to find correspondingly more abundant supplies of soluble matter in the soil. This consideration, however, is of less force and importance when the crops we cultivate are of a species possessing greater vigor and increased power of assimilation.

In addition to these general principles of a rational rotation, we must have special reference in our selections, to soil, situation, and climate. And to elucidate these principles more fully, the following examples may serve. Recently manured land contains a store of alimentary matters of various kinds, sufficient to serve for a series of years. Some of these substances are, from their nature, sooner exhausted or withdrawn than others; and this is more especially the case with the nitrogenous elements—these being very readily and rapidly taken up, in consequence of their great solubility. From this cause, also, some plants are very apt to become overcharged with nitrogenous elements, which causes their constituent matters, to be disproportionately combined. Again, in recently manured land, the various ingredients supplied by the manure are generally not so intimately blended and mixed with each other and with the soil as is desirable; nor is the soil equally and uniformly fertilized, so that some very poor spots may not unfrequently be found in close proximity to others highly enriched. And on the whole, during this period, the manure itself, being as yet but imperfectly decomposed, operates with a considerable degree of irregularity, according to the good or bad quality of those of its ingredients which first came into action. This is the reason why the soil, after having been recently dressed with fresh manure, is

not well fitted to sustain, at the commencement of a rotation, a crop requiring much potash and ammonia, and less needing phosphorous; and we choose in preference such, for instance, as rape, tobacco, &c.—The ensuing crop of winter grain does indeed also require much potash, but it should be remembered that, after a dressing of fresh manure, a much greater quantity of this substance is present in the soil, than the first cultivated crop requires, and that the progressive decomposition of the soil itself, superinduced and renewed by the introduction of the manure, again furnishes an additional store of potash in a soluble state. Potatoes, also, are not suitable as a first crop after manure, because they require and absorb so much potash from the soil, that the ensuing crop is apt to suffer from the want of it; and if occasionally, land be found, on which winter grain succeeds well after potatoes, it will be found that the soil is naturally stored with a great abundance of potash. In these respects beets also resemble potatoes. As the second crop in a rotation, wheat and rye is preferable, because, though requiring large quantities of potash soda, phosphoric acid, sulphur, and nitrogenous ingredients, these substances are usually still contained in the soil in sufficient amounts for a second crop. After winter grain, potatoes and turnips would properly follow, because, by means of their great vegetative power, they are able to seize and appropriate the requisite elementary substances which yet remain in the soil, though in a less soluble state, after a crop of winter grain has been taken off. At this period, also the superabundant nitrogenous elements of the soil will have been reduced to a proper equilibrium with the requirements of vegetation, and are consequently no longer injurious by their presence in excess. On the better kinds of soil, however, spring barley may be introduced immediately after winter grain, because this crop requires a much smaller supply of nitrogenous substances than the preceding one did. It also needs less potash, though more silicic acid is necessary, which will have been provided and rendered soluble by the preceding fall ploughing. Though barley requires less phosphorus than winter grain, yet this may be the reason why this crop does not succeed well in some soils after wheat, inasmuch as in them the store of phosphorus may have been totally exhausted by the demands of the wheat. It is, however, always more prudent to let barley follow potatoes or turnips; not only because this accords well with the true idea of a rotation, but likewise because the barley will then certainly find a sufficient supply of phosphoric acid in the soil and be enabled to produce a more plump and perfect grain. Clover should properly follow after barley, because it draws the substances it needs principally from a greater depth of the soil, and finds them there in greater abundance; and a portion of those substances are subse-

quently again deposited in the surface soil because the roots of the clover while decaying, furnish supplies of carbonic acid and nitrogen. The clovers also, especially lucerne and esparcet or sainfoin, aid the decomposition of the soil by the greater length of time during which they occupy the land. These are among the chief reasons why the clovers leave the ground in a fertile condition, prepared not only for the growth of winter grain, but for the recommencement of a rotation of a longer or shorter course, according to the condition and natural character of the soil. As the concluding crop of the series oats may very properly be introduced, because of all the cereals this plant possesses the greatest vegetative power, while at the same time its predominant ingredient is silicic acid, and it needs the presence of the other elementary substances only in small quantities. On these accounts it seems to be peculiarly qualified to take up and appropriate what the previous crops have left remaining in the soil.

NOTE.—The summary of Agricultural Chemistry contained in the consecutive numbers now concluded, is from the pen of Professor Stockhardt, one of the principals of the Agricultural Institute at Tharand in Prussia, and co-editor of the monthly agricultural paper issued there. The views presented, it may have been noticed, differ on some points from those of Leibig and his school; but, being those of an experienced and experimental farmer, whose operations are conducted with care and precision, for the purpose of ascertaining the most reliable and most profitable application of scientific principles to popular practice, they may claim attentive and candid examination, as properly at least as the more theoretical opinions of the great Chemist.

The "*Chemische Feldprediger*" of Professor Stockhardt—a course of lectures delivered in turn before some sixty Farmers' Clubs in Saxony, and recently published at Leipzig—have been well received, and will when completed constitute a valuable addition to the farmer's library, as the style is simple and the illustrations admirably adapted to the wants of those for whom the work is intended.

For the Farm Journal.

The Cinchona or Peruvian Bark Tree.

MR. EDITOR:—Your *Farm Journal* is a welcome visitor in my family. Permit me to express the hope that it may soon be in every farm house in the State.

There is a matter pertaining to agriculture which I wish to suggest; and that is, the more extensive introduction of foreign trees that may be ornamental or useful. The matter I have especially in view is the cultivation of the Peruvian tree yielding the Jesuit's bark, which gives us the invaluable quinine. Is it not the only specific for fever and ague? I saw last fall a statement that the disease named was extensively and distressingly prevalent in the western country, and sufficient quantities of quinine to arrest its course could not be obtained. The worth of the man who "makes two blades of grass grow where but one grew before," Swift has told us. Would he not be a benefactor to his country who would acclimate the Peruvian bark tree among us? I am aware its native position is near the equator, but the Andes and Cordilleras are crowned with everlasting snows, so that Peru must possess every variety of climate, from that which produces the palm and ripens the orange to that which yields hemlock and the pine.—I know not whether this bark comes from the warm

valleys, the cooler hills, or the cold mountain range, though I presume the former. We know that a variety of our valuable esculents and plants now growing to perfection among us, were indigenous in the tropics. Need we despair that the Peruvian tree may be made to flourish as far north as Pennsylvania?

Who is our minister at Bogota? If you think fit to publish, will you send him the number that contains it, and request him to send you, for the *Journal*, some account of the tree. Can it be propagated by grafting? Can young trees be easily obtained? I wish the government would direct inquiries to be made of their agents in South America.

[The above communication, without name or date, was received sometime since. We delayed its publication expecting to hear further from the writer, but were disappointed. We now present it to our readers with a few remarks.

The *Cinchona* tree is indigenous to South America. The name was given it by Linnaeus, in honor of the Countess of Cinchon, who first introduced the bark into Europe. Numerous plants belonging to the genus have been discovered in various parts of the world. Only a single species has been found in the United States, the *Pinckneya*, which was discovered by the elder Michaux, in Georgia and South Carolina. Whether it prevails to any extent in those States, or whether its bark possesses the virtues of that procured from South America, we are unable to say. It appears, however, from the best authorities, that the genuine *Cinchona* trees are found only in South America, over which continent they are widely diffused; extending from La Paz in the former vice-royalty of Buenos Ayres to the mountains of Santa Martha on the northern coast. Those from which the best bark is procured, grow at various elevations upon the Andes; but seldom at less height than 4000 feet above the level of the sea, and require a temperature considerably lower than that which prevails in tropical countries. This fact would seem to favor the idea of our correspondent, that this tree might be acclimated in the United States. We do not know whether the experiment of propagating it by grafting has ever been tried. Young trees, we presume, might easily be procured, but whether when procured, (even if successfully acclimated,) their cultivation could be made an object, we leave it to those more familiar with the subject than ourselves to determine.—ED.]

For the Farm Journal.

Comparative value of the Oats and Corn Crops.

MR. EDITOR:—As the season is at hand when the farmer is obliged to make preparations for his spring crops, it may not be amiss perhaps to make some comparative statements relative to the value of the two principal crops, viz: corn and oats.

My experience, based upon actual facts and calculations, warrants me in asserting that the oats crop—

taking everything into consideration—will yield but little over half the net income of the corn. Farmers all know that there is a much greater risk with the oats than with the corn crop. If the season is highly favorable to most other crops, oats is in great danger of lodging before ripe, and in that case, scarcely pays for the harvesting, much less the seed required, plowing, use of land, &c. On the contrary, if the season is dry, it suffers more than almost any other crop.

Corn planted on the ground, usually reserved for oats, if well cultivated will yield on an average sixty bushels to the acre; which, valued at fifty cents per bushel, will amount to thirty dollars per acre. Oats at an average yield of sixty bushels per acre, at thirty cents per bushel, will amount to eighteen dollars per acre. Here we find a balance in favor of corn of \$12 per acre; which is a trifle not to be overlooked.

True, it may be maintained, that the labor required for the cultivation of corn is a drawback, and it may be further maintained that it does not leave the ground in as fine a condition for the succeeding crop of wheat. To which I respectfully reply: the value of the fodder for feeding of stock over that of oat straw will fully compensate for the additional labor of raising corn. Fodder is worth five dollars per acre at the lowest calculation, when hay rates at ten dollars per ton; and we know that amount will pay any surplus work, taking into consideration the small quantity of seed required, compared with that of oats. Besides, by planting an additional field of corn we require so much less hay; and I am thoroughly convinced that by raising a greater quantity of corn and feeding it along with the fodder on the premises, thereby converting it into valuable manures, our land instead of deteriorating will increase in fertility.

In answer to the second objection, I will relate my mode of management, and leave it to the reader to judge of its expediency. I manure heavily the ground that was corn the preceding year, in order to give the seed of weeds on the surface time to germinate—plow late—just before planting—roll the ground with a heavy roller, to make it compact—plant the corn in rows of three and a half to four feet apart, cultivate diligently, to keep ahead of weeds, and in the fall cut it off at the ground, and carry sixteen to twenty rows together. I then plow the intermediate strips that have been cleared, and generally, owing to the fact that it was heavily manured in the spring, the ground is in first rate condition for wheat. If the season is late and favorable, I frequently husk the corn and the seed the narrow strips on which it was carried; if, on the contrary, the season prove unfavorable, I leave the strips until spring and then sow them with oats. I will add, in conclusion, that wheat on corn ground has frequently been the best and heaviest on the whole farm.

J. F. HERR.

Strasburg, Lancaster co., March 7, 1852.

[The above communication was received some time since, but accidentally mislaid. It contains some excellent suggestions.—ED.]



Diagram explanatory of the geological structure of a part of the United States between the Atlantic and Lake Erie.
A B Atlantic plain. B C Atlantic slope.
C D Alleghenies, or Appalachian chain.
D E Appalachian coal field west of the mountains.
F Falls and rapids of the rivers at the juncture of the hypogene and newer formations.
G H Parallel folds of Appalachians becoming successively more open and flatter in going from E. to W.
1. Miocene Tertiary.
2. Eocene.
3. Cretaceous strata.
4. Red sand stone with Ornithichnites.
5. Coal measures (bituminous).
6. Old Red or Devonian, olive slate, &c.
7. Primary fossiliferous or Silurian strata.
8. Hypogene strata, or gneiss, mica, schist, &c.

Geology applied to Agriculture, No. 3.

The above diagram will afford a pretty correct view of the manner in which the several strata of our State succeed one another in a cross section from east to west. The better to demonstrate the several formations, I have, as in the original sketch by Professor Rogers, retained the Atlantic or New Jersey section, which shows the tertiary and cretaceous deposits of that State and which adapt the soil in an eminent degree, for many products cultivated there with great success, such as melons, cantelopes, sweet potatoes, garden vegetables, and several kinds of delicate fruits especially peaches.

This section is very properly termed the Atlantic plain, and extends along the coast from Long Island to Louisiana both inclusive.

The next or Atlantic Slope includes in our State the primary rocks already described, and the *New Red Sand Stone* formation—the former termed by Mr. Lyell *hypogene*. The latter forms a most interesting and important district extending continuously from the Raritan bay to the centre of Virginia. The same formation is also largely developed on the Connecticut river. It is remarkably uniform in materials and appearance, consisting of dark-reddish brown sandstone, almost invariably argillaceous; of soft crumbly brown shales, and coarse calcareous or siliceous conglomerates. The dip of the strata is generally toward the northwest at angles varying from fifteen to twenty-five degrees.

Doubtless many of your readers living within the lines of this belt would like to have its limits defined, and I shall therefore give them, as detailed in the report by the State geologist, of the region between the Delaware and Susquehanna rivers. "Its southern margin crossing the river about a mile and a half above the city of Trenton, runs nearly westward to the Schuylkill passing about two miles south of Norristown; it there extends by Valley Forge and Kimberton to French creek, the course of which it follows nearly to the county line of Chester. It passes about half a mile to the north of Morgantown, Churehtown and Hinkletown, and goes through Millport to Buchanan's run where it suddenly folds back and runs towards the northeast, through Ephrata to Reamstown.

From the last point it sweeps in a regular curve, first towards the northwest and afterwards the south-west, crossing the turnpike at Middle creek. Reach-

ing Hammer creek, it descends along the course of this stream to Erb's Mill, where it turns again westward, passing about a mile to the northward of Litiz, reaches in the same course Manheim. Here it goes once more towards the east, which direction it pursues as far as Buchanan's run, where, however, it again turns westward, continuing in that course uninterruptedly to Springfield, at which place it makes another short flexure but soon resumes its western range, passing one and a half miles south of Elizabethtown, and thence nearly in a straight line south-westward to Bainbridge on the Susquehanna.

From the Delaware river at Trenton to the Warwick mine, near the head waters of French creek, the red sandstone stratum overlaps the gneiss and other rocks of the primary class. From the latter point it ranges in contact with the white sandstone of the Welsh mountain, but on entering Berks county and in its course across the whole length of Lancaster county, its southern margin is everywhere in junction with the limestone.

The northern border of this formation beginning at the Delaware near Durham, if traced westward across our district, will be found to pass about one mile south of Springtown, and one mile north of Cooperstown to the Hosacock creek, where the road crosses it in Upper Milford township. It then runs a little to the south of Mount Pleasant iron mines, passes Boyerstown, crosses the Perkiomen one mile south of Black Bear tavern, and meets the Schuylkill about two miles south of Reading. The Potomac marble or calcareous conglomerate, occupies several long narrow tracts along the line just traced; one a little below Springtown; another on the Manatawny creek, and a third on the Limekiln creek. It also occurs on the Schuylkill below Reading. From this point, the northern edge of the sandstone stratum extends, with slight undulation, in a nearly western direction to the south-western end of Millborough hill, overlapping first, the limestone of the Kittatinny valley; then primary rocks, and finally the white sandstone of this hill. From Millborough hill it ranges a little south of west through Sheafferstown, past the Cornwall iron works and thence along the turnpike to Campbellstown, from which it takes nearly a straight course to Highspire on the Susquehanna. Between Millborough hill and the Susquehanna, the red sand-

stone lies everywhere in contact with the limestone of the Kittatinny valley."

This interesting district is one of the most highly cultivated portions of the State, the soft and pulverulent nature of the soil rendering tillage comparatively easy. Indian corn, wheat, and other cerealia yield abundantly, and the soil is better adapted to the artificial than the natural grasses, the primary formations evidently affording the proper pabulum for the latter.

The Red sandstone belt is rich in minerals, although they have not, with some exceptions, been actively wrought until within a year or two.

Iron ore of excellent quality is found in several localities; copper, lead, and silver also abound, and there is reason to believe that the recent efforts to mine them on an extensive scale will prove successful. The variegated or conglomerate marble being similar to that of which the columns of the capitol at Washington are formed, is probably susceptible of being polished, and is well worthy the attention of builders and architects.

In the primitive and sandstone series are several extensive exposures of basaltic or trap dykes, such as are shown on the diagram of the Isle of Arran.—These rocks are extensively displayed on the Harrisburg railroad near Elizabethtown. Although very hard, the soda and oxyde of iron in them promotes disintegration, as may be observed by their rounded and worn surfaces, and also the numerous cracks and fissures that are found in them.

Relics of vegetation are sometimes found in the red sandstone strata in the form of compact bituminous *lignite*, bearing a strong resemblance to cannel coal, but the hopes they excite are entirely delusive.

The formations west of the new red sandstone and extending from the eastern base of the ridges, which compose the South mountains to the crest of the Sharp mountain, are the lower secondary of Prof. Rogers or the Silurian and Devonian of English geologists. This range embraces the great Kittatinny, Lebanon, Cumberland and other limestone valleys, famous for their fertility, and high state of cultivation. There is also within this range a great amount of Oline coloured argillaceous sandstone and red shales, which are poor and unproductive on the high ridges but making a very good soil in the valleys and plains—a soil that is readily cultivated, and in most cases greatly improved by the addition of lime.

There is indeed a larger proportion of land in Pennsylvania capable of being brought into profitable use than in any other of the Atlantic States; such at least was the opinion of Wm. Maclure the able and accurate pioneer of American geology. He says that "Pennsylvania consists principally of transition and secondary, having the smallest quantity of the primitive class of any State east of the mountains, and most probably the greatest quantity of good land, in

proportion to its surface of any of the Atlantic States." In this group or series there are few metallic substances yet discovered except *iron*, which abounds in almost every formation, within the State, and perhaps is more generally diffused than in any other known country of the same extent. The great source of fertility and wealth however in this region is lime, and to this mineral production under the hand of skill and industry, is due the high reputation of Pennsylvania farms. It is proper to note here that the limestone of the primary series is highly magnesian; that of the lower secondary less so; and that of the upper secondary or later formations still less intermingled with magnesia.

Formerly it was supposed that this ingredient in limestone was deleterious to vegetation, but modern experience has proved the contrary, and that it is only necessary to use the magnesian limestone or *dolomite* in smaller quantities than the pure carbonate of lime.

A. S. ROBERTS.

Philadelphia, April, 1852.

For the Farm Journal.

Dogs--Small Farms--Lime--Corn Fodder--Planting Corn.

BRADFORD COUNTY, PA., April 22, 1852.

MR. EDITOR:—I have been a reader of your excellent Agricultural Journal for one year, and am much pleased with its manner and its matter. I hope it will be sustained, as it will certainly be highly useful in this State. I have often thought of corresponding with you, but like hundreds of others, handle the plough better than the pen. I will, however, give you a few crude ideas on farming, or rather on the contents of your last Journal.

The first article in your April number is on the protection of sheep. I agree with the writer—a good revenue might be raised by taxing dogs, and no one injured by it. A farmer should not be kept in fear of losing his flock of sheep, or perhaps prevented from keeping sheep altogether, to accommodate his neighbor with one, two or three worthless curs, which even though harmless, are still a great loss to the owner. I am fond of a good dog, and keep two; and feel that I ought to be made pay tax for one certainly, as he is of no use, and it costs me as much to feed him as it would to fatten a good hog. This is every man's experience who keeps dogs.

Your article on the first page relative to farmers, is in my opinion not correct. I know that it is common to preach up the profits of small farms, and condemn the culture of large ones. This is entirely a matter of circumstance. If a farmer can do all his labor with his own hands, or with the help of his wife and children, so as not to be compelled to hire help, then he should have a farm proportioned to his abilities; but if a farmer hires all his laborers, he cannot make money enough to pay them and his

other expenses from a small farm. If one acre is worth cultivating, one hundred is better; because the large field can be cultivated at a much less expense per acre, than the small one, and every acre of a large field will produce more and better crops, than an acre of a small lot, allowing both the same cultivation. If a farmer can make money by hiring five men, he can certainly realize more by hiring twenty, if he manages equally well. If a farmer improves his lands they rapidly increase in value, particularly in a new country. The increased value of a small farm is small—the converse of the case is true with large farms. Small country farms are not suited to the genius of the American people. They are an enterprising race. A large adventure suits them best. I would like to see one field of a thousand acres in corn in Pennsylvania. Do not start with surprise, and suppose that it is my wish to persuade any one man to swallow up the small farms of Lancaster county, by the expression of such a wish. Far from it.

I also agree with Mr. Stavely from Bucks county. His experience and mine, relative to lime, have been the same. It is certainly a good fertilizer, and a cheap mode of renovating worn out lands. Indeed, in many places it is the only enriching substance that can be found in sufficient quantities to improve the land.

Mr. Keller's communication on your fourth page is excellent. I treat my cornfodder just as he does in curing it; but have not been able to save it from moulding in the barn. I intend trying the plan he recommends in storing it away. Well saved cornfodder is the best feed we have for cattle in the winter. They will eat it in the spring, when they will not touch the best of hay. A good, well saved crop of cornfodder will come very near paying for the culture of the whole crop of corn. The cutter, and crusher mentioned by Mr. Keller, I know nothing of, but would like much to have it. Can you tell me the price of the machine?

Mr. Ellmaker, of your own county, has given you a good article on corn planting. The time he recommends for planting is no doubt about right for the latitude of Lancaster county. From the 10th to the 20th of May, and even to the 1st of June, will do here. Some care should be taken in the kind of seed we plant; but there is little to be gained by planting too early. In furrowing out for planting, I prefer three feet six inches each way, with three or four grains in a hill. This would be too close for your heavy Lancaster county land, where corn grows very high, and gives much shade. Our small yellow and eight-rowed white corn grows stout, and may stand thick. It is not an uncommon thing to see three or four or even five good ears on one stalk, and the stalk not more than six feet high. I prefer spring to fall

plowing for corn, and plow, harrow and cultivate my corn both ways, never using a hoe after it is planted. A common good crop here, is fifty or sixty bushels of shelled corn to the acre. Ninety bushels have been raised to the acre in this county; but this is a rare occurrence. The opinion of your Lancaster county correspondent is correct as to comparative profits of corn and wheat. It is as easy to raise sixty bushels of corn to the acre, as it is to raise twenty bushels of wheat. Farmers are apt to over-estimate the average of their wheat crops. I consider twenty bushels to the acre a good average crop, and am satisfied with fifteen bushels, taking all my fields together. A gentleman of this county, a few years ago, raised a little over forty bushels of wheat to the acre, and his whole crop averaged that year, over thirty bushels. My best crop produced on one field, thirty bushels to the acre, and an average that year of twenty-two bushels.

When I sat down I intended to notice all the articles in your last number, but it was too large a furrow for me to turn over.

A BRADFORD COUNTY FARMER.

For the Farm Journal.

Work for the Kitchen and Flower Garden.

Celery—In the cultivation of *Celery* we prefer land that has lain sometime in grass, as it takes less time in the preparing of the trenches than the ordinary method; and the grass being allowed to grow at the edges forms a cool shade from our hot mid-day sun—Our plan is to dig them from East to West, 4 feet apart, 16 or 18 inches deep, a little wider than the spade, after which we fill with short stable manure (an old hot bed preferred) to the depth of 5 or 6 inches, and cover with 2 inches of good loam.

The seed should be sown early in April, transplanted when large enough to conveniently handle (into a bed previously prepared and well manured) to the distance of 6 inches that they may get good stocky plants before planting in the trenches (which will be about the middle of June) into which plant 6 inches apart, taking care in removing to keep as much soil on the roots as possible. After transplanting, water well (if in dry weather) in the morning.

An early crop of peas, dwarf or bush beans, Lettuce &c., can be grown on the ridges between the trenches, and will be off in time to earth up, which operation should not be performed before September, or they will be apt to rust. In earthing, great care is needed in keeping any soil from coming in contact with the crown of the plant, it is best with one hand to grasp the plant keeping the stems quite close, whilst with the other you draw the soil tightly around it. A little extra pains will amply repay in the superior quality of this delicious vegetable. The earthing up should be continued at least every fortnight that the stems may be thoroughly blanched, leaving only the tops of the stalks above the surface.

The varieties mostly cultivated are Seymours' new white, Seymour's champion (white,) the Matchless red and the Manchester or Giant red; the white are mildest in flavor and the most saleable, but the red are of easier culture and generally of larger growth.

Brocoli, purple cape, and white cape.—Few who have ever tasted of this delicious vegetable (which so nearly approximates both in appearance and habit to the Cauliflower, and which is so much easier cultivated) but are desirous of adding it to their stock.

The seed should be sown from the middle of May to the first of June, and when large enough, transplant similar to cabbage, manuring well, (the great secret in growing good vegetables.) The purple cape suits this climate the best.

Sugar corn may be sown every 2 or 3 weeks for a succession. Also, dwarf or bush beans, white, red, and yellow turnip rooted radish—lettuce at intervals, also cucumbers for pickling. Transplant this month, drumhead, flat dutch and red dutch cabbage, also drumhead and green curled savoy for fall and winter use. Earth up peas, beans, potatoes, &c. Keep all weeds out of the garden, as they are robbing your crop of the very best of their food, independently of their unsightly appearance.

Beets.—Transplant them now from the seed bed in rows of from twenty inches to two feet apart, and about eighteen inches in the row. Let the soil be rich and deeply dug if you would have fine beets. Water after transplanting if the weather is dry, continuing it until they begin to grow.

Carrots, for the general crop should now be sown. Sow in drills half an inch deep, in rich light sandy soil. As soon as the plants are up thin them out to a distance of three or four inches apart. This may readily be done with a small hoe.

Egg plants should be well attended to, regularly hoed, and if continued dry weather prevails, an occasional watering will do no harm. Those intended for the late crop may be transplanted in moist weather. Plant in rows two feet apart each way. Dwarf beans may be planted between rows.

Endive may be sown the latter part of this or the beginning of the following month. Draw drills four or five inches deep about twelve inches apart, and sow the seeds therein. A little light rich earth sufficient to cover the seed should then be sprinkled in the drills. Water occasionally, and when two or three inches high, thin them out to eight or ten inches apart. The advantage of drilling them in this way is, that the earthing up is more easily done and very warm weather does not affect them so much. When eight inches high prepare them for blanching by gathering the leaves closely in the hand, (being careful that no leaves or litter remain in the centre) and tying them up closely with a piece of cotton twist or matting. A dry day must be selected for this operation if you would have your plants in fine condition. In about fifteen days they will be blanched fit for use.

Peas—Those grown for the succession should be earthed up regularly, and as the earlier crops have matured, the haulm or vines should be cleared away and the ground prepared for late cabbage, &c.

Peppers—Transplant this month. The soil must be good. Set the plants 15 inches apart each way, and as the season advances hoe them frequently and earth up the stems.

Radishes. Continue sowing a few from time to time. They require but little culture and always form a fine vegetable for the table.

Salsify—Keep down the weeds by hoeing regularly.

Spinach—As the season has been very backward, Spinach which should have been sown in March and April, may yet be put in. Select an open situation well enriched. Hoe and cultivate well if large plants are desired. Thin out the plants when too thick.—When they have leaves two or three inches broad the outer leaves may be gathered, the root and heart being permitted to remain to shoot out again.

In the *Flower Garden* tender plants may now safely be planted out, and such as have been unsuccessful in raising their stock should fill up with annuals ready grown which may be had at a small advance on the original price of the seeds, at any of the Seed Stores or Nurserymen. A list of varieties may perhaps be of advantage in forming a collection, which we give, Sweet Alyssum, German Asters, Phlox Drummondii, Gaillardia picta, Eschscholzia Californica, Crocea and Compacta, Bostonia aurea, Caccalia coccinea, Nemophila insignis and Maculata, purple and white ten week stocks, Lobelia gracilis and erinoides, Schyzanthus retusus and Grahamii, purple, white and scarlet Candytuft, Clarkia pulchella and Neriflora, Clintonia pulchella, Mignonette, Pigmy Dwf., French Marigold. Petunias varieties—Papaver Marshallii, Phacelia varieties, and Climbers, such as Thunbergia alata, Ipomea quamoclit or Crimson Cypress vine. Maurandya Barclayana three varieties, blue, pink, and white. Eccremo carpus scaber, Lophospermum scandens and Hendersonii—most of the above blooming till frost.

Yours,

PAR-LA-VILLE.

Philadelphia, May 20, 1852.

For the Farm Journal.

The Ladies' Department at the State Fair.

MR. EDITOR: I was much pleased to observe at the State Fair at Harrisburg last fall, a very large number of articles on exhibition which were the products of the industry and skill of women. No department of the Exhibition attracted more general attention, and to me no other possessed half as much interest. While it may seem perfectly natural that my tastes and inclinations should lead me to admire the display of quilts, needle-work of various kinds,

For the Farm Journal.

The house or clothes moth.

Swatara Falls, March 22, 1852.

MR. EDITOR:—Will you be kind enough to describe the character and habits of the provoking, and frequently destructive insect (commonly called house moth) with which every housekeeper is more or less troubled in this country; any information you may be kind enough to communicate through the Farm Journal, (on the manner and process by which the insect is propagated, the various transformations through which it passes, what state it is in when it commits its ravages on everything woolen it comes in contact with, and what is the best preventative, &c.) will be thankfully received by many of your subscribers.

DAVID MUMMA.

MR. EDITOR:—The "house moth" alluded to by your correspondent, belongs to a very extensive family (Tineidae) of minute Lepidopterous insects, most of which in their imago or perfect state are distinguished by their narrow wings, with a plain margin (entire) twisted spirally around the body (convoluted) when in a state of repose; bodies generally long and slender; antennae of moderate length, either simple in both sexes, or coated with fine soft hair beneath, (pubescent) in the males: eyes and palpi prominent. The larvae are generally naked or slightly hairy, many undergoing their transformations in portable cases, formed of the various material upon which they feed, and consequently, it is in that state that many of them perpetrate and continue their work of destruction, attacking woolen material of every description, furs, skins, &c., and if pressed with hunger will even eat horse hair* and cotton goods, out of which they also construct their habitations.

As soon as the larvae of the clothes moths (Tinea) are excluded from the eggs, (which have been previously deposited by the parent female upon the material affording food appropriate to the species) they commence forming cases suited to the size of their bodies, out of filaments of wool, which they cut close to the thread of the cloth, and after felting them together, they carefully line the inside with a coat of fine silk which they spin from their mouth in the same manner that the silkworm (Bombyx mori) does. Extreme necessity alone can compel them to leave these cases when once formed and inhabited. When they want to feed, they put out their head from either end of the case as may seem most convenient, which apparently for that purpose, has been left open.—When inclined to move, the head and about half the body is protruded, thus they move forward dragging the case along with them by fixing the hinder legs (posterior prolegs) firmly in the inside: these being surmounted by a cornet of little hooks (as all Lepidopterous larvae are) for that purpose form very efficient.

Yours &c.,

Mrs. M—B—N.

Lancaster co., May, 1852.

BARK BOUND TREES.—Scrape with a knife and wash with very strong soap suds, once or twice during a season, and the cure will in all probability be effected; if not tie long straw around the trunk of the tree, which is said to be an effectual cure.

* Kirby & Spence's Ent.

cient instruments of prehension. They seem to destroy a great deal more than is required for the necessary amount of aliment, and therefore in moving from place to place, they are no doubt as much incommoded as we would be in walking through high grass; and accordingly in order to facilitate locomotion, they with their teeth cut a smooth road (as close to the thread of the cloth as if it had been done with the sharpest razor) from time to time reposing themselves, and making fast their little cases with small silken cables. When from the increased size of the larvæ the cases become too short, they easily lengthen them by adding a piece to one or both ends; but to enlarge them in width does not seem to be so simple a task. For this purpose they make a straight cut about half way down each side of the case, into which they put a piece formed of portions of eroded wool, felted together and lined, after which they proceed to enlarge the other end in the same manner. This process may be demonstrated by placing them, and leaving them remain for a time undisturbed upon different colored cloths, when they will present "coats of many colors." When full grown, the larva of the clothes moths (*Tinea*) are from $\frac{1}{4}$ to $\frac{1}{2}$ of an inch in length; white, naked, and the head and pectoral legs a bright glossy brown. The cases present a larger or smaller appearance according as the material from which they are constructed is coarse or fine. After changing to a chrysalis in April or May,* according to external circumstances, they remain in a quiescent state about three weeks, when small nocturnal moths are evolved of a silvery grayish color, about $\frac{1}{4}$ of an inch in length, more or less, according to species, sex, or incidentals, having the eyes prominent; palpi much developed; antennæ moderate in length and (in the specimen before me) simple: wings slightly convoluted. It is in the winged state and after the impregnancy of the females, that they lay the foundation of their colonies of future destruction; and they are then so insignificant and inconspicuous in size and appearance, that it is with difficulty that we can believe they can possibly be authors of so much mischief. I am not fully advised as to the time or details in reference to the disposition of their eggs, but having seen the winged insect early in the spring and also in the after part of summer I have been led to suppose there may be at least two broods in a year; the spring brood being of course the most destructive from the

* I have some of the larvæ of the *Tinea* that I took from an old woolen garment in the beginning of last October, and confined in a box, putting in a piece of cloth for them to feed upon: one has changed into a chrysalis, and the others, (April 10th,) are still feeding: these have been kept all winter in a cold room. The perfect moth or imago, before alluded to, evolved from the chrysalis on the 7th of April, it being confined in its winter operations in a warm room, near where a stove pipe enters a flue. I have also some larvæ that I took from an old garment on the 9th of April: one of these was feeding upon and had formed its case entirely out of cotton material. This, I am convinced, from the circumstances under which I found it, was a case of extreme necessity: the animal being so hemmed in, that there was no alternative but starvation.

fact that they are enabled during the summer to pursue their work comparatively free from interruption. Being twilight or nightflyers, they are attracted, with hordes of other insects of like nocturnal habits, around lighted lamps or candles burning in our chambers, and wherever there is an aperture large enough, they are sure to enter, where numbers of them meet a common end by flitting around the flame until they get their wings singed, and then fall helpless into it, and thus perish. The females being solicitous for the preservation and perpetuation of their species, instinctively seek a place to deposit their eggs, furnishing the necessary aliment for their young when hatched. The eggs are very small, and a small portion of glutinous matter voided with each one, by which they are cemented to the material upon which they have been deposited; and moreover being generally of a light color, they may easily elude our closest scrutiny and be taken for only a little dust, or not observed at all. In this way our woollens are packed away in dark moist places, for the summer, and in many instances receiving no attention until too late, or none at all. These are the most favorable circumstances for the rapid development of the destructive energies of the insect; namely, moisture, darkness and uninterrupted or quiet. Woollens should therefore be thoroughly beaten up and examined minutely often during the summer, especially in the months of August and September, and every offender dislodged and destroyed; for, as frequent combings and applications after the eggs have once been deposited in the hair of animals is the most effective mode of exterminating the vermin that are sure to follow, with the least injury, so, frequent searching, interruptions, beating and airings are the best in cases where the eggs of the moth have been deposited. But in airing, care should be taken in not having them exposed too late in the afternoon, or that no little female moths be carried in, in misplaced sympathy, and snugly stowed away with the articles you are so solicitous of preserving from their ravages. Experience has demonstrated to me that in many instances the larvæ of the clothes moths are entirely overlooked by indignant housekeepers in their anxiety to find the supposed offender, which of course they imagine must be something more formidable in appearance than the little creature we are just describing, and woe betide the hapless intruder of any other tribe, however innocent he may be. If he makes an attempt at escape, all is charged to him; and the real offenders merely shaken off as excrement or tufts of gnawed wool or hair, and left to wend their way back again if possible, or to find some new field to continue their labors. To such it may be beneficial to know that the clothes moths in their larvæ state never make an attempt to escape, they are not organized for any active locomotive movement. The only activity noticed

ble is the sudden drawing in of the head; and closing the end of the case when interrupted, which they effect by collapsing them. Indeed, it is not a matter of surprise that they should thus elude the notice of a common observer, for some how, being sensible of the proximity of an enemy, they continue thus shut up for some minutes, when if you continue your observation, you will see them cautiously protrude their heads, but suddenly draw them in again, (like boys playing "hide and go seek,") on feeling the agitation of the air only, caused by your breathing too near them.

There is another species, not so common in our houses as the former, that attack the linings of carriages and other woolen goods, that are in an unprotected state. These do not construct a moveable case as the former do, but eating their way into the cloth they form themselves galleries lined with silk, in which they reside and undergo their transformation:—and yet another species, that is very partial to furs, and ladies have often to deplore the ravages committed upon their muffs, tippets, capes, &c. It is said that this species, if hard pressed, will even eat wool or horse hair, and form its moveable habitation of such materials.

As tobacco in its concentrated or manufactured form is obnoxious to insects generally, it is recommended by some that woolen goods when packed away, should be plentifully seasoned with strong snuff or chewing tobacco. Camphor is also recommended, but I know from experience that camphor has little or no effect in preserving my insects from the cabinet moth. I have, therefore, more confidence in tobacco.

"It is said that moths never attack unwashed wool—that is, wool as it comes from the sheep's back, before any cleansing process has been applied to deprive it of its natural oil or smell. It is therefore recommended to be placed in layers between clothes or blankets, or kept in small parcels in drawers, where they are kept." (Maun. Trs. His. 434.) This latter remedy I have never tested, and, therefore, cannot speak of it advisably; it is however simple and worthy of a trial.

Even with these remedies, woolen goods should be kept perfectly dry, and frequently aired and examined, and all the small follicles or cases containing the larvæ of moths carefully collected and destroyed; in this way an "ounce of prevention is worth a pound of cure."

I have thus given the information commensurate with my limited knowledge of the branch of Entomology to which the insect in question belongs; a branch replete with interest and usefulness; but in consequence of the fragile character of the insects that belong to it, and the difficulty of their preservation, one that has not heretofore enlisted as much of

my interest as some others. Under any circumstances I would rather the task had been assigned to abler hands, nor am I sure that further investigation will confirm all I have said; as I am certain that much remains to be developed. If however this communication can be of any benefit to the readers of the *Farm Journal*, or elicit the least inquiry or investigation on the subject discussed, I may still have the assurance of knowing that I have in a very humble degree performed a service.

S. S. R.

For the *Farm Journal*.

A place for everything.

TO THE EDITOR OF THE *FARM JOURNAL*.—Some thirty-five years ago, I purchased for my own use some tools, which were occasionally used by my young men, but through whose want of care, they were often mislaid and sometimes lost.

Being much annoyed by it, I adopted the plan of marking out the shape of each tool; and thus attained an object; for which I had been long striving, viz: inducing others to return things to their places, without being much looked after. Many years passed by before I thought of extending it further; but as necessity still leads to invention, I found the same principle, (that of "association,") could be variously applied, and with equal success.

For some years my garden tools have been thus arranged. In my stable, forks, shovels, brooms, dust brushes, curry combs, &c., are so provided; and even my riding bridles have their precise places marked out, with the shape of the bit, &c.

The utensils used in the kitchen, that are hung up, are symmetrically arranged upon that plan; and although the cook has never been desired to keep them in their places, yet they are never found out of place except when in use.

The same principle is applied in our store in various ways, and with satisfactory results. Each counter has its color, nominally, viz: green, blue, black, brown, red, &c.; our brushes and yard sticks, the shape of which could not be marked out for want of space, are painted to correspond with these colors.—An opening in the right hand end of each counter, is the place for the dust brushes; and a convenient place provided for the yard sticks. The color being conspicuous, has the desired effect, and leads to great regularity, and lessens the care of the principal in this respect almost entirely.

Scraps are prevented from collecting upon the floor, by having scrap bags convenient, behind each counter; and there are other arrangements upon the same principle, which promote good habits and increase the usefulness of those about us, which can be better understood if seen.

There is a virtue in it, which cannot be appreciated till it is tried; for it not only induces the employer himself to be more careful, but leads to regularity on

the part of others; which is often of vital importance to success in any kind of business. Habits of carefulness should be formed in early life.

If a tool is lent, the borrower is aware, that there is a tell tale in its place; and if he fail to return it in season, it ceases not to admonish, till the missing article is restored. Thus many things are promptly returned, and in good order, that for want of it, are left about and abused; the owner subjected to inconvenience, and for want of seasonable attention they are perhaps forgotten or lost. Besides, articles thus cared for, are found to be much more durable, than when left to chance. Respectfully thy friend,

TOWNSEND SHARPLESS.

Philadelphia, 5th mo., 4th, 1852.

Order---Carefulness.

If we properly considered our true interest, and indeed our own convenience, we should be led to see the importance of the moral influence resulting from *habits of order*.

Even children perceive the beauty and advantages of care and neatness; and almost instinctively acquire the practice, from the example of those with whom they are associated.

Some persons plead, that they have no turn for such things, and therefore they are excusable for their neglect. But this is a mistake. The real difficulty arises from a feeling of which some are scarcely conscious; and which few are frank enough to acknowledge. Is it not to save ourselves a little trouble? Is it not self-indulgence? To be plain—is it not indolence? And does not the indulgence of this feeling cause more of our troubles and difficulties than many are aware of?

For example,—if we have unnecessarily neglected a duty, or have left an article out of place, which might as well have been returned at the time; if we have done a thing indifferently which ought to have been done well—or if we have failed to accomplish an object for want of due exertion;—What is the reason? Let us be honest and examine fairly. Is it not that we have given way to the feeling spoken of?—And do we not find that this feeling gains strength by indulgence? But how are we to get rid of it? The reply is, we must contend against it, and show it no quarter; and little by little we will gain the mastery. Early life is the best time to eradicate it; but it will yield to proper efforts at all ages.

You ask,—how is this to be effected? The answer is, by *learning to love labour*. But to do this, you must study to make every kind of business a pleasure. To a great extent this can be done. For by carefully digesting, and then adopting, the most simple and systematic mode of performing every duty, greater precision and success will be attained; and being simplified and made easy, the performance will become a pleasure. For no position is more true than this: *Whatever we feel we do well, we take pleasure in doing*; and is not the converse equally so? Whatever we feel is not well done, affords us no satisfaction. If, therefore, we learn to do everything well, will not the doing of every thing then be a pleasure? Does not this correspond with our own experience?

Difficulties will frequently occur, but these must not dishearten us, as nothing valuable can be accomplished without effort; and for our encouragement we should always bear in mind that there is a way of

doing everything, and if one method fails, we must try another.

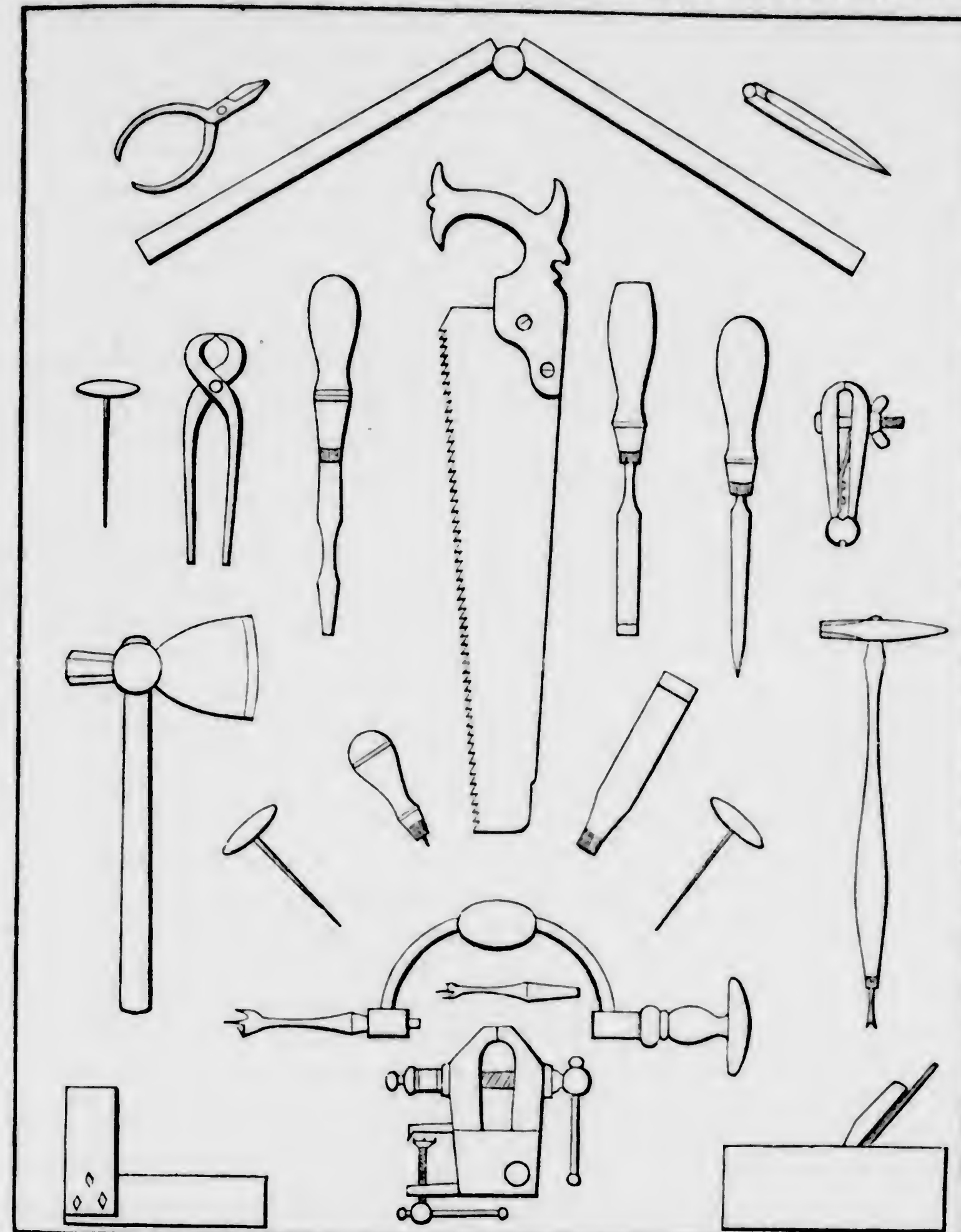
The principles of order and neatness are so simple and so plain, that it needs but a moderate attention to understand them; and but reasonable effort to put them into practice: but that effort must be continued and persevered in, until we succeed. For step by step we shall gain on our deficiencies; and the consciousness of some progress will encourage further exertion. We should never forget that to become fitted to train others, it is especially needful we should first discipline ourselves.

An eminent and successful agriculturist when asked what made a good farmer, replied, "To mind little things." When we visit a neighbor who is remarkable for good management, we are struck with the peculiar effect and beauty of his arrangements; although perhaps at first we can hardly tell why. But when we come to analyze, we discover it is the result of attention to "little things," providing places for things and keeping them in their places.

If, when we enter a house, we see scraps of paper, rags and pieces of thread scattered over the floor—if the dress of the housewife has been thrown upon her without care, and perhaps soiled and torn; if her children are disorderly, uncombed and uncleanly, does it not affect us unpleasantly? and accustomed to better management, do we not turn from it with disgust? Are we at any loss to determine that indolence is the cause of all this? Can we doubt that if the housewife had properly attended to "little things,"—was an early riser and made the best of her time—that her room, her dress and her children, would have been entirely the reverse, and instead of an offensive, would have presented an inviting appearance? For what is more becoming than a neatly dressed woman? or more delightfully interesting than a family of clean and orderly children? The mere circumstance of a small bag being hung up in each room, and the scraps regularly deposited there, will promote habits of care and cleanliness, beyond what could have been anticipated. This may seem a small matter, but it is the *beginning of order*; and if strictly followed up, its influence will be felt throughout the whole family.

But may not the same principles be applied elsewhere? Is there nothing to be done on the outside of the house? Let us examine—how is it with the fences and the hedges, and the appearance of the dwelling? Are they all snug? Have you a supply of choice fruit trees convenient, and of such grape vines as will stand the winter, and are they kept well trimmed? Have you a wood-house? Is it well supplied with fuel and neatly arranged? How is it with the garden and the front yard—and the lane—and the barn yard, and the barn? Are they in good condition? Have you scrap bags there? or in other words have you suitable places for unsightly things—for such things as cause disorder, and litter your premises; and serve as examples of mismanagement and waste to those about you? If you have not, why is it? how can you expect them to be careful when you are careless; to be industrious when you are slothful; and to be saving when you are wasteful? If you permit this state of things, do you not encourage it? and is it not really teaching them the reverse of what your interest requires? Do you not see it? If you do, then rouse up to your duty and set a better example for the future. For do you not remember that whenever you have done so, how pleasant has been the result? Shall the example of a wise Providence be lost upon us, and shall we not be improved by what was intended for our instruction as well as our benefit? Observe the operations of nature! How beautiful! How ad-

A SEPARATE PLACE FOR EACH THING, AND EVERY THING IN ITS PLACE.



mirably adapted to their end!—the order—the regularity—the wonderful economy! nothing in vain—nothing wasted—nothing lost!

But you say you have not time to attend to these things: are you aware how much of your time, as well as your property, will be saved in the end? In laborious matters we may be industrious, and yet omit small ones through negligence.

You rise early of course, but is all your time employed to the best advantage? Do you note the fragments of it that are wasted by yourselves, and those around you? You see then it is not for want of time; it is for want of properly employing it—it is for want of method; and no one can fill up the full measure of his usefulness without it. You are saving of your money, then why not economize your time.

We should all remember that it is our duty, and indeed our interest, to instruct others as well as to improve ourselves; and it may be truly said, that he who can accomplish and teach others to perform with ease a double amount of duty, is as much a benefactor as he who causes the "two blades of grass to grow where but one grew before." To assist you in

the object contemplated, provide a small book with but *two leaves*, and as they occur to you, note in such little matters as may require care; you will then be able to attend to many things which are now neglected, because not thought of at a leisure time. But this book must be examined *daily*, and cleaned up as often as possible; for if the items are suffered to accumulate, the book will lose its virtue.

Are there not some other things to be looked after? Where are your implements of labor—your ploughs; your harrows; your hoes and your shovels; your forks; your rakes and scythes? Are they in good condition, and in their proper places; or are they exposed to the weather, and some of them mislaid or lost?

Have you a tool-house? Have you a work-shop? If you have not, there must then be some disorder; and is not that the cause? For a deficiency of care in one respect generally leads to it in others; and it is the *habit of care* you must acquire.

Would you know the secret of having things *keep in their places*? then provide suitable places for them, and have a distinct and separate place for each.

But these places must be convenient and easy of access; and the articles must be arranged with some taste, and so as to produce a pretty effect. This will be pleasant to the eye, and will awaken a feeling of interest in those in your employ, and each one will take pleasure in promoting the object. To ensure success, however, you must go further. You must mark in outline the exact shape of each article upon the wall or partition against which it may be placed. Try it and you will be astonished at the result; it will act like a charm in restoring things to their places. And from it you will derive a further advantage, as you will thereby be enabled at a glance to see exactly what implements and tools belong to you, and more pains will be taken to keep them fit for use.—And if at any time they should be left out of place, or be lent to a careless neighbor, you will be continually reminded of it until they are returned, and thus often saved from loss.

The good effects of this plan will not stop here, for its successful operation will be a valuable example in the neighborhood, and a practical illustration of the beauty and usefulness of order.

It will also serve to fix in the minds of those about you, a principle applicable in various other forms, and it will gradually produce an effect upon their habits that will, more or less, influence all their conduct.

Note.—The diagram at the head of this article is a copy of a closet recently fitted, and comprises most of the tools that would be needed for a family. For a farmer, a greater variety would of course be required. But the design of the plate, is to show that any set of tools or implements may be so arranged as to present a symmetrical and tasteful appearance; by selecting some prominent article as a point or centre, and radiating, or otherwise arranging the others around it.

The tools are secured in their places by staples made of wire, and by small brass or iron hooks, or by nails. One of the awl handles is hollow, and contains about a dozen blades of different shapes, each of which will fit firmly into the other handle. The shape of the tools as there represented, was marked out by a small stiff brush, and with ink. The cost of the tools at retail price, was \$8 67.

For the Farm Journal.

The Best Plough for General Farming Purposes.

MR. EDITOR: I take the liberty of enquiring through the medium of your valuable "Journal" for information in regard to the selection of the best Plough for general farming purposes. I suppose you or many of your contributors to the "Journal" being practical Agriculturists could give the necessary information. The soil in this region of country is of rather a sandy nature, not having very stiff sward in general. The best plough we have is R. Hall's Patent. (Pittsburg) I think this plough rather heavy, especially for light soil.

Yours, with respect,

F. A. M.

Mercer county, Pa., 1852.

[*Pacling's Plow*, manufactured in Montgomery co., Pa.; *Prouty & Mears* No. 5½ and 45, as well as several other kinds manufactured by the same firm; *Plank's Cutter Plow*, manufactured in Cumberland co.; *Cressler's Plow*, in the same co.; the *Wiggin's*

Plow, manufactured by Geo. Buckman, Pineville, Bucks co.; *Minnich's Plow*, manufactured by John Minnich, Mechanicsville, Lancaster co., are all of them excellent implements.

The Iron plows of Messrs. Hall & Speer of Pittsburg, as well as that of R. Hall's referred to by our correspondent, performed well at the State Fair, and attracted much attention. Garrard's plow, of Allegheny county, also did excellent work.

We might enumerate many others, but think F. A. M. will be able to suit himself from among those mentioned. We hope the inquiry will induce some of our correspondents to furnish us with information relative to the respective merits of the plows above named, as well as of others, with which we are not acquainted.

For the Farm Journal.

North Western Pennsylvania.

MR. EDITOR:—As inquiries have lately appeared in the Farm Journal, asking information in regard to the condition of Agriculture, price of lands, &c., in Northern Pennsylvania, I deem it of importance to communicate what facts, particular observation and authentic accounts have put me in possession of, to any who may contemplate settling among us. Agriculture either as a science or art, scarcely ranks here as high as the platform of mediocrity—routine farming is the evil with us—and as our fathers did, so do we—manuring is the same as with our ancestors—ploughing is the same—and as an inevitable consequence, the crops are the same. But this cannot long exist, for we have an excellent soil, great natural advantages—and even now a few beams from the light of science have penetrated the dark places—and made the once unproductive wastes blossom as the rose. Our people are awakening to their interests; have partly dropped their prejudices against "book farming"—and a few leading men in our county, although alone, will eventually work a complete reformation. An Agricultural Society has lately been organized, which, if rightly conducted, must be productive of much good.

The population according to the late census is nearly 40,000, composed of emigrants from other sections of the State, Germans, Irish, Yankees, and French. Education has a very prominent position—there are five academies, one college and several high schools within the county. We have five papers, three political, one neutral, and one whose character I do not know. The face of the country is undulating, but not hilly. It is watered abundantly, and several beautiful streams pass through it, and some have their origin here. The celebrated *Seneca oil* is collected from one, (which bears the name of Oil creek,) and is made an article of considerable traffic. Nature designed this section of the "Keystone State," for grazing, but very good grain of all kinds can be raised

with an ordinary amount of labor. I could not estimate the average crop of wheat at the present, but I do know, that a Chester county farmer came here two years ago, and bought a farm near a thriving village at \$13 dollars per acre, and on which the previous owner could scarcely exceed a fifteen bushel crop.—After one application of manure and leached ashes, he raised more than *thirty-five* bushels of good wheat to each acre of ground. Oats and corn do very well with us, and find constant demand and a cash market.—Great quantities of cattle are driven away from this by Eastern drovers to stock farms, and also for the New York market. Wool is not of as fine a quality with us as it is in various other parts of the State, but we find ready sale for all we grow, and receive a fair price—from 33 to 40 cts. was the range last year.—Timber is abundant and of an excellent quality. Pine in the eastern portion of the county, and oak, poplar, walnut, cherry, white ash, &c., &c. in the other parts grow to a very large size, and add materially to our physical advantages. The Erie Extension Canal passes north and south through the western part, giving us direct communication with Pittsburg and Erie, and bringing us within thirty-six hours ride of New York city. The Pittsburg and Erie R. Road is being located at the present time, which will pass in the vicinity of the canal, and give us additional advantages. I have not mentioned what attention fruit culture is commanding here, but we will assure any who design coming here, that we have good fruit, with the exception of peaches, and these will not endure weather as cold as is usually found between 41° and 42°. The curculio of late years has done considerable damage, but if swine are confined near to the roots of the tree, it usually puts the little fellow at his wits end. The pear blight is an unusual occurrence.

If any design removing from the thickly settled sections of Pennsylvania to the "far west," let them before going so far, examine the merits which north and north-western Pennsylvania so largely present and compare the relative price of lands of this, with monotonous prairies—the moral and physical advantages we have over a great deal of the Western country, and if the solid and calm conclusion is not in our favor, then we submit to superior judgment.

A. McLEAN WHITE.

Hartstown, Crawford Co., Pa., May 22.

For the Farm Journal.

Lunar Influence.

MR. EDITOR:—I observe in your publication a discussion on the influence, real or supposed, of the moon on the condition of timber and the growth of plants. Mr. Taggart treats the subject very summarily, and is endorsed by an anonymous correspondent who calls himself *Franklin*. Mrs. Pearson ventures

on a modest and moderate defence of the power popularly imputed to the moon.

If the lady is wrong she has with her, among others, a philosopher of reputation, at least equal to the anti-lunarians—nay, the father of physical philosophy—Lord Bacon himself. In his *Sylva Sylvarum*, (century IX) he remarks:—

"The influences of the moon most observed are four. * * For the increase of moisture the opinion received is that seeds will grow soonest; and hair and nails and hedges and shrubs cut &c., will grow soonest, if they be set or cut in the increase of the moon. * * Take some seeds or roots, as onions, &c., and set them immediately after the change, and others of the same kind, immediately after the full; let them be as like as can be, the earth also the same as near as may be, and therefore best in pots. Let the pots also stand where no rain or sun may come to them, lest the difference of the weather confound the experiment; and then see in what time the seeds set in the increase of the moon come to a certain height, and how they differ from those that are set in the decrease of the moon. * * There may be other secret effects of the influence of the moon which are not yet brought into observation."—And the author then proceeds to name several of those among which are some with which most farmers believe themselves to be familiar.

The inductive philosophy taught by Bacon, which looks to facts and discards theory—which is based on observation, and, springing from ascertained truth, must lead to just conclusions, is the only philosophy for the farmer whose pursuits are emphatically *practical*.

The question in hand cannot be settled by an argument—it can only be determined by a long series of observations, made with the precision recommended by Bacon. Although these may never yet have been so conducted as to be conclusive, it will not be denied that the general and almost universal opinions of men, in all ages and countries, have been in favor of these alleged lunar influences. Dr. Lardner, who is a skeptic on this subject, admits that the extent of the belief, in quarters of the earth distant and disconnected, is such that it is a fit subject for serious investigation. Arago has not thought it beneath his great reputation to enter on its elaborate examination. The Royal Society of England has done the same. In France the cutting of timber during the increase of the moon is prevented by law.—*De St. Hilaire* found that in Brazil this opinion prevailed. *Francisco Pinto* of Espirito Santo assured him, as the result of his experience, that the wood which was not felled at the full of the moon was immediately attacked by the worms and very soon rotted. In the extensive forests of Germany the same opinion is entertained and acted upon with the most undoubting confidence of its truth. *Saner*, a super

intendent of some of these districts assigns what he believes to be its physical cause. Almost everywhere, both in this country and Europe, it is believed that the moon exerts a decided influence on the phenomena of vegetation. *Mintanari* has attempted also to assign the cause of this supposed effect. Dr. *Mead* was a believer in the influence of the sun and moon on the human body, and published a book to this purpose, entitled "De Imperio Solis ac Lunæ in Corpore humano."

In the pursuits of agriculture there are often found effects, the causes of which are unknown. How many wild theories have been advanced to explain what, to human intellect, is inexplicable in regard to the germination of seed, the growth of plants and the thousand phenomena which our farms continually present to our observation. Facts are not the less true because we are ignorant of some preceding fact which we would call a cause.

I am far from joining those who allow the moon to govern their farming operations, but neither would I altogether reject, in the present state of our knowledge, or rather ignorance of the subject, the settled and almost universal belief of those who have had the best opportunities for observation and are much interested in correct practice. I have endeavored to bring the matter to the test of experiment, but have found the results utterly inconclusive. It cannot, I apprehend, be satisfactorily denied, except by some one whose attention is more fully devoted to the subject, than is possible to one absorbed by the diverse engagements which every day brings with it. Some public institution might cause a series of experiments and observations to be made which would determine the question. Years of time and thousands of tests would be necessary. The resolution of this single question would be an ample return for the endowment of an Agricultural College. If it be a popular fallacy, much would be saved by knowing it. If it be a truth, much would be gained by knowing it. And as no man's mere opinion, however respectable—as no theory, however plausible, can decide it, I respectfully submit that it may still be considered an important, practicable question, and which there is no great doubt, can be settled and ought to be, by some competent authority.

WILL. A. STOKES.

Ludwick, near Greensburg, March 24, 1852.

For the Farm Journal.

On the Preservation of Manure.

MR. EDITOR:—In the December number of the Journal, I submitted to your readers some remarks on the subject of deep plowing, with the necessity of increasing the fertility of our soil, and, for that purpose of economizing manures. When a farmer is duly impressed with the importance of augmenting his manure heaps, and has turned his attention to

every available means, he will naturally be led to inquire how he may best manage them, so as to derive from his accumulations the greatest amount of benefit.

The principal source of supply in our practice, is the contribution of our stables and barnyards and consists of the produce of the farm, which has been consumed by the cattle or thrown out as the offal of the various crops. It is, in short, the organic matter yielded by the soil and modified by consumption in the support of animal life, and contains all that is necessary to the growth of plants. To prepare this mass, which has in part been used for the food of animals, to serve still further for the food and nourishment of vegetation, (thus completing the circle established by creative power,) requires that change which is brought about by decomposition, and is chiefly effected by the agency of moisture and heat. But the admission of these agents, which are abundantly supplied by the elements, is attended with the danger of loss by waste from evaporation and leakage, moisture producing fluids, and heat gases, and both indeed, uniting in each operation. The great object is to obtain the change without the consequent loss; and I propose to inquire how that may be done.

It is a common mistake to convert the cattle stall or stable into a laboratory of manure. Pure air, is essential to the healthy condition of any animal.—By allowing manure to accumulate and remain, the atmosphere is filled with the innumerable, invisible particles of ammonia, nitrogen and other gases, which are extremely unwholesome to breathe, and injurious to the health of cattle. On the importance of ventilation and cleanliness for the preservation of the health of domestic animals, I cannot do better than refer to the valuable essay, published in the first number of this Journal, p. 10. "Filt and moisture conjoined with heat," says the able writer, "are the greatest enemies of health." It is plain, that stables cannot be kept too cleanly and sweet. The sooner all filth is removed, the better. There should be a drain to carry off from every stall whatever will flow as a liquid. It should pass out of that apartment. But to suffer it to run entirely away and be lost, is poor husbandry. It should be arrested as soon after leaving the stable, as practicable. A manure or compost heap, should be formed near the stable or cattle shed, where the farmer should accumulate his stock of manure. To this heap, all the drainage of the stable, barnyard and outhouses should be conducted: which will supply the requisite moisture, while sufficient heat, even in a low temperature of the atmosphere, will arise from the fermentation.

In order to lead the various liquids to this deposit, the surface should descend towards it, and to confine them to the mass of which they are to constitute a part, a mound or wall should be raised on the lower side, which as well as the bottom should be puddled

with clay, especially if the soil be gravelly or sandy. Having secured the fluid portions of the heap, it remains to prevent exhalations, which carry off the most fertilizing ingredients in the form of gases and vapour. These often manifest themselves, when escaping, to the sense of sight or smell. They should circulate through the heap, but not be allowed to transpire. It is of the utmost consequence to prevent their escape. They assist in the process of decomposition, improving the quality of the manure in proportion to their quantity. If the materials be exposed to the sun and weather, it will be impossible to confine these volatile parts to the heap; the heat of the sun and the wind will co-operate in evolving and dispersing them, and the waste thus occasioned, will leave the remainder, comparatively worthless. It will readily suggest itself to all who consider the subject, that the manure heap ought to be under cover, to protect it from the direct action of the sun's rays, from rains, and from winds. Stone walls and a roof, for this purpose, would be good economy.

Some such shelter being provided, to secure the compost or manure still better, and to complete the arrangement, it would be advisable to cover it with a substance that will prevent the gas and vapour from transpiring or passing out of the heap.—Sod or soil would in some measure effect the purpose, but not fully. What is infinitely better, is a very small quantity of Plaster of Paris, (less than a peck will answer,) cast over it twice a week. This will combine with the ammonia as it rises from the decomposition of the manure, and completely fix it, at the same time, increasing the value of the fertilizing ingredients of the heap. The effect will be demonstrated to the senses, by the absence of all disagreeable odors; which is the immediate result of the application.

If the manure is intended for a sandy soil, copperas is said to be preferable; a few pounds pulverized, being weekly scattered over it.

The plan here recommended involves some trouble and expense, but this will be richly compensated by the important advantages that will flow from the sound condition of the stock, the health of which will be preserved, and the quantity and quality of the manure, the farmer will amass for the ameliorations of his land and the increase of his crops.

A. L. H.

Lancaster, May 24th, 1852.

For the Farm Journal.

Longevity and Pugnacity of Game Fowls.

MR. EDITOR:—One of my neighbors, a man of excellent character, informed me a few days since, that he had been the owner of some fowls which he raised from eggs produced by hens imported from Ireland. They were of the game breed, and two of the hens lived to be eighteen years old. Both laid eggs during the last year of their life, and one of them

was hatching, when, overcome by old age, her powers gave way, and she was found dead on the nest after a week's sitting. In consequence of their intolerable fighting propensities, he was compelled to cross the breed. The young cocks killed each other by their almost incessant combats, and the hens too, not unfrequently fought fiercely. He further stated that it was not uncommon, in the fall, when the ground was wet during the day and frozen at night, to find two of the cocks frozen fast in the mud in the morning, where they had fought until so completely exhausted as to be unable to get away. The stock from which these pugnacious fowls were obtained, was brought from Ireland by some Emigrants who located for a while at the village of May Town in Lancaster county.

DAVID MUMMA.

Sweatara Falls, April, 1852.

For the Farm Journal.

Random Recollections and Remarks on Fruit Culture in Lancaster County.

Or a Comparison of Fruit Culture Forty Years since, with the present time.

You will perceive, Mr. Editor, by the above heading, that the following remarks on Fruit Culture, will necessarily be of a rambling and disconnected order. As I have no new theory to advocate or advance, I design taking a retrospective glance of the actual condition of things, as I have found them during a series of years; extending back nearly half a century, and drawing a comparison between the state of fruit culture then and now.

The demand for choice fruits—or I might say fruit of any kind—is far greater at the present, than at any time previous. The enquiry is often put to me, (as well as to others I presume,) "why do our farmers not raise more fruit? Serious charges are frequently made verbally and through the press, against farmers on this subject, charging them with carelessness, neglect, ignorance, &c. Now the object of this article is, in a measure, to disabuse the public mind, and to show, that other causes operate to produce this state of things in regard to fruit culture.

I must however, congratulate the public, and express a hope, that ere long from the "brightening prospects" and through the increased attention being paid to fruit trees, that fruit will again become plentiful as of yore.

Thirty or forty years since, there were comparatively, few obstacles to the cultivation of various kinds of fruit—no particular mode of planting or cultivating—no specific manures, mineral, animal, vegetable, organic or in-organic—no science was requisite in training or culture to produce meagre crops of imperfect fruit. All that was necessary, was, to plant the trees and protect them from cattle for a few years, and the planter was abundantly rewarded for his labour.

If seedling stocks were planted as was mostly the

case, the produce was good, bad, and indifferent; and if the trees were grafted, the produce was according to the variety propagated. Yet in all instances, the trees bore abundantly and regularly,—apples biennially, pears, peaches, cherries, &c., almost every year. Occasionally indeed, a late frost would “nip the flowers in the bud,” but such was not often the result. Forty, thirty, even twenty years since, the apple crop was as certain every *alternate year*, as the grass growing beneath the trees. Such a thing as a failure, during the *apple year* was almost unknown. Hundreds and thousands of wagon loads were taken to the distilleries, and converted into *apple liquor*.—It was a general custom among farmers in those days to prepare for the apple year, by not commencing any extra work, such as making improvements on the farm—or doing any work that could be put off to the intermediate year—or getting through with their customary work in time to attend to “picking apples” for cider, for whiskey and for winter use. Generally from three to six weeks were thus devoted to the apple crop every second year.

At the present time—or I might say since the cold winter of 1835—fruit raising has become a precarious business in this county. On Jan. 5th, 1835, the thermometer descended to 22° below zero, and the consequence was, that thousands of peach, pear, cherry, and many apple trees perished from the effects of the cold. Whole orchards on level ground were frozen so severely as to arrest their growth for years—the trees barely putting out leaves annually, without extension of branches, and the wood black and diseased at the heart. Nevertheless, that cold winter can not be the sole cause of present unfruitfulness—as trees planted since—although more thrifty, are no better bearers than the others.

In respect to the Pear, we had at that time probably not much over a dozen varieties in the county; these would however, bear profusely nearly every year. The Early Harvest, ripe last of July—St. Ghislain, ripe last of Sept.—and a fine luscious winter pear keeping till Feb. and March. These three varieties were apparently as hardy as the oak, and growing nearly as large. Then we had the Butter Pear, and a seedling from it superior to its parent, both ripening in August; we had the Red cheek, the Bergamot, and few others with local names, and various others without names; all these producing fruit, in quality equal, if not superior to many of the new importations, and the trees growing freely in almost any soil and bearing large crops. Where are those large and healthy trees now? Few of them are in existence, and those still living produce, if any, nothing but insipid and worthless fruit.

Peaches in those days, we might say with truth, were “lentiful as black berries,” and almost as hardy and productive. Many a wagon load of fine, large peaches have I helped to pick for Peach Brandy.—

Budding was not practised. All the trees were propagated from the stone or seed. It is not believed however, that native stocks are more hardy than those that are budded. Neither worms nor yellows injured the trees. I think if my memory serves me, it was between 1812 and 1820 that peach worms and yellows commenced to destroy the trees. At first the cause of so many trees becoming sickly and dying was unknown, no remedy ascertained, and the consequence was, that nearly all the peach trees in the county were destroyed, and for years it was a rarity to see a peach. Subsequently, the cause was ascertained—young trees were planted, and the remedy applied; so that occasionally, we have a crop of Peaches.

I remember also, a large number of varieties of the Foreign grape vine—the small yellow Gudatel, one of the most tender varieties, producing large crops of luscious fruit in a garden in the open country—and the same kind growing up the gable end of a house to the roof. These vines produced strong healthy shoots—and the fruit could not have been surpassed in its native country. This was about the year 1820. Every person who took any interest in grape culture, in the city of Lancaster at that time, must remember a species of the Chassalas, or sweet-water, (I am not certain which,) growing in the yard of the late Adam Reigart, and producing splendid clusters of large luscious white or yellow grapes?—Where are those fine plants now? Or, is there a single healthy and prolific vine of a foreign species, now growing in the open air without protection, in the city or county of Lancaster? I know of none in the country. From 1825 to 1828 the mildew commenced its ravages on the Foreign grape, and, although the roots made annual attempts to throw up healthy shoots, the efforts were abortive; and finally branches and roots became exhausted—and ceased to exist. Every attempt to cultivate the foreign grape in the open country within my knowledge, since then, has proved a failure. What can be the cause of this state of things, I am unable to say. I have no doubt many who have devoted their attention to fruit culture, will recollect these changes, and bear me out in these assertions.

The same remarks almost literally apply to the Potato, an esculent, not coming under the head of fruit, yet of probably greater usefulness. Volumes have been written on the cause, and remedies proposed for the rot, yet all will admit that nothing definite has been discovered up to the present time, that will enable the cultivator to raise sound, healthy potatoes and good, certain crops, as formerly.

There must always be some cause to produce an effect, and that cause remains to be discovered. The most reasonable conclusion in the premises is, that it is owing to a peculiar state of the atmosphere, and

beyond the control of man. Changes in the seasons may sooner or latter correct all these evils.

At all events, I am not satisfied with any of the proposed theories, or remedies, either *specific manures*, *high culture*, or the more common and rather hackneyed assertion that all this scarcity of fruit is owing to the *neglect of farmers*. You Mr. Ed., as well as all your readers know, that farmers are not very likely to *neglect* any thing that will sell for ready cash—that would so well remunerate them for their land and labour as the raising of choice fruit, if they could succeed in raising it as well as formerly.

[Conclusion in the next number.]

For the Farm Journal.

Is Oats Straw Injurious to Milch Cows?

That Oats Straw is unsuitable food for Milch Cows may be well known by many farmers and dairymen; but the probability that there are some unacquainted with the fact, induces me to write what I have observed in reference to it.

At different times, our cows have failed in their milk, without any apparent cause; the cream after being churned a greater length of time than usual, was converted into butter of an inferior quality.

This has occasionally happened when the cows were nearly dry, and the defect was attributed to this cause.

In the early part of the present season, having a large quantity of oats straw, it was liberally used for littering the stables, and yard about the barn. The cows ate it in preference to other food, and the result was similar to what has just been described. The cows in this instance were all fresh. They were immediately placed where they could have no access to the oats straw, when they gradually returned to their former condition.

If some of the numerous writers for the Journal, will explain why oats straw produces this effect, they will oblige

AGRICOLA.

New London, Chester co.

Northumberland County Agricultural Society.

The Northumberland County Agricultural Society met at the Court House in Sunbury, on Monday, 5th, 1852, at 2 o'clock, P. M., for the purpose of electing officers for the coming year.

The meeting was called to order by David Taggart, on whose motion, J. R. Priestly took the Chair, in the absence of the President.

In pursuance of the object of the meeting, the Chair appointed a Committee of seven to report officers, to wit: David Taggart, James Pollock, Samuel John, Wilson Hutchinson, Robert M. Frick, Daniel Hilbish and Benjamin Gearhart.

After a short retirement, the Committee came in and reported the following named officers:

President—Samuel Hunter.
Vice Presidents—James Cameron, Jos. R. Priestly, Geo. C. Welker, Jacob Seesholts, Wm. B. Kapp, Jac. Hilbish, John Montgomery.

Corresponding Secretary—David Taggart.

Recording Secretary—Wm. J. Greenough.

Treasurer—Wm. L. Dewart.

Librarian—William McCarty.

Managers—Alexander Jordan, Jas. Pollock, Jesse C. Horton, Amos E. Kapp, Samuel Shanon, Samuel John, James Eckman, Peter Oberdorf, Jos. Weitzel, Wm. Fegeley, Wm. Deppen, Benneville Holshoe, Michael Lenker, Isaac Baker, John Hine, John B. Heller, Henry J. Reader, Chs. Riddle.

The report was unanimously adopted.

Jno. F. Wolfinger offered the following resolution, which was adopted *nem con*.

Resolved, That this Society recommend to all farm and lot owners within the county to whitewash all their buildings and fences put up in the rough or with upland boards, for these reasons: First, because whitewash is neat and cleanly. Second, because it operates as an excellent preservative of wood against decay. Third, because it also acts as a preventative of fire. Fourth, because the free use of lime around our premises, has a constant tendency to purify and render wholesome, the air—and lastly, because if generally practised, it would give our towns and country seats a pleasant and beautiful appearance.

Mr. Taggart asked leave to say a few words in behalf of the paper which he held in his hand. (The Penna. Farm Journal) He spoke of its very low price, and said it was the only Agricultural paper in the English language, published in the State, and as such was entitled to our consideration and patronage. This was the 13th number he received, and he was not afraid to assert that every number was worth the full amount of its yearly subscription. He appealed to gentlemen who had received it, if it was not so.—The State of New York was able to support 4 or 5 such journals, and some of them with subscription lists of 30 and 40,000. It was hard, indeed, if Pennsylvania could not sustain one, and sustain it handsomely. The Press had always been considered by him, as the Right Arm of every Art and Science, which it had been established to advocate; and was not the less so, in the Art and Science of Agriculture. He moved the following resolution which was unanimously adopted.

Resolved, That this Society highly approve of the Penna. Farm Journal, and earnestly recommend it to the patronage of Agriculturists and others throughout the county—and that the members be requested to exert themselves to increase its circulation.

On motion of Mr. Greenough, the township Committees of the last year were re-appointed.

The proceedings were ordered to be published in the County Newspapers, and in the Farm Journal.

The meeting then adjourned, after which the Executive Committee held a Session to fix a time and place for the next county Exhibition.

Present: Messrs. Priestly, Cameron, Horton, Pollock, John, Jordan, Seesholts, Kipp, Kapp, Taggart, Greenough and Welker.

Mr. Horton was called to preside. After Considerable discussion between Messrs. Cameron, Taggart, Pollock and John, it was resolved to hold the next Fair at Northumberland, on the 7th and 8th of October.

WM. G. GREENOUGH.
Secretary.

It is estimated on good and sufficient data, that the gross aggregate of the public lands belonging to the United States is, in round numbers, fourteen hundred and fifty millions (1,450,000,000) of acres.—*Watchman*.

Pennsylvania Horticultural Society.

The stated meeting of this Association was held in the Chinese Saloon, Philadelphia, on Tuesday evening, May 18, 1852.

E. W. Keyser, Vice President, in the Chair.

The display on the occasion was very fine: the tables through their entire length were covered with beautiful plants in flower, some fruit and remarkably well grown forced vegetables. The collection of plants from Dr. James Rush's greenhouses was truly fine, consisting of very large Orange Trees, Azaleas, Acacias, Fuchsias, etc. The table from John Lambert's contained beautiful Roses, Pelargoniums, Cinerarias and many others. The collection from Caleb Cope's houses was handsome, embracing a number of choice Pelargoniums, Fuchsias, Azaleas, Pintas, Sparaxis and others. From Robert Buist's were, as on former occasions a number of new plants, and shown for the first time, of which *Hibbertia Cunninghamii*, *Zieria trifoliata*, *Hoya Cunninghamii*, *Eutaxia pungens*, *Epacris Copelandii* and *E. laevigata*; also, Azaleas, Camellias, Spiraeas, Lichenalias, Ericas etc., with a collection of cut Tulips, and several Seedling Lilacs and a Seedling Horsechestnut. From Benjamin Gullis' houses were fine Roses, Pelargoniums, Cinerarias, handsome Verbenas, Heliotropes etc. Robt. Cornelius' gardener brought a collection of select Roses. Gerhard Schmitz, many choice seedling Tulips well broken, originating with himself, and of merit. Jno. J. Jennings exhibited many fine Tulips, William Hobson had a new and undescribed Boraginaceous plant in flower, from California. The Boquets were from Caleb Cope's ground, and from Jos. S. Loverings, and baskets of interesting indigenous flowers were exhibited by Thomas Meehan and Robt. Kilvington.

The Fruit shown was from Caleb Cope's forcing houses and consisted of a dish of fine Hovey's Seedling Strawberry, another of black Hamburg Grapes, Ripe Cherries, and a vine filled with black Alicant Grapes.

The vegetables did credit to the Contributors.—Thos. Meehan, gardener to Robt. Cornelius, presented a superb table of forced esculents comprising 40 to 50 heads of the finest Cauliflowers ever shown before the Society, 3 varieties of Cucumbers, 2 kinds of Lettuce, 4 of Radishes, String Beans, Early York Cabbages, Asparagus, etc. William Hobson exhibited very large Rhubarb of his own seedling and Victoria varieties. Henry Cooper and Sam. Cooper, superior Rhubarb, and James M. Tage very fine large Asparagus.

The following are the reports of the Committees: The Committee on Plants and Flowers respectfully report. *Pelargoniums*, for the best to Thos. Meehan, gardener to Caleb Cope; for the second best to Wm. McIntosh, foreman to Robt. Buist. *Roses*, for the best hybrid perpetuals, to Benj. Gullis. *Tulips*, for the best eight named varieties, to Wm. McIntosh; for the second best, to the same; for the third best, to Benj. Gullis. *Boquets*, for the best to Thos. Meehan; for the second best, to John Miller, gardener to Jos. S. Lovering. *Basket of cut flowers*, for the best, to the same.

The Committee noticed a splendid display of plants from the garden of Dr. J. Rush. Also, a fine display of seedling Lilacs from the Nursery of Robert Buist, and beautiful seedling Horsechestnuts, and six new plants exhibited for the first time.

The Committee on Fruits respectfully report.—*Grapes*, for the best three bunches of black Hamburg, the Bronze Medal, to Thos. Meehan, gardener

to C. Cope. And a special premium of two dollars for a dish of very fine Strawberries raised under glass.

The Committee on Vegetables respectfully report. *Cucumbers*, for the best six specimens, to Thos. Meghan, gardener to R. Cornelius. *Rhubarb*, for the second best, to Henry Cooper. *Asparagus*, for the best 24 stalks, to James M. Tage, for the second best, to Thos. Meghan, and for the best display by a private gardener to the same. And a special premium of three dollars to Thos. Meghan for a beautiful display of Cauliflower.

On motion adjourned.

THOS. P. JAMES,
Recording Secretary.

American Pomological Congress.

In compliance with a resolution passed by the American Pomological Congress during its session at Cincinnati in October 1850, it becomes my duty publicly to announce that the next Session will be held in the City of Philadelphia, on Monday, the 13th day of September, 1852. The Congress will assemble at 10 o'clock, A. M., in the Chinese Museum Building, south Ninth street, below Chestnut.

The Pomological, Horticultural, and Agricultural Societies throughout the United States and Canada are invited to send such number of Delegates as they may deem expedient. And the Delegates are requested to bring with them specimens of Fruit of their respective districts.

Packages and Boxes of Fruit for the Congress may be directed to the care of Thomas P. James, Esq., No. 212 Market street, Philadelphia, should the owners be unable to give their personal attendance.

The various State Fruit Committees will, on or before the day of meeting, transmit their several Reports to A. J. Downing, Esq., general Chairman of the whole. The Chairman of each State Committee is authorized, where vacancies occur, to fill up the number of his Committee to five members.

W. D. BRINCKLE, M. D., President.

Philadelphia, May 1, 1852.

Editors, friendly to the advancement of the Science of Pomology, are respectfully solicited to notice this circular.

Trial of Agricultural Implements.

By The New York State Agricultural Society.

The trial of Grain Reapers, Mowing Machines, Steam Engines for farm purposes, Grain Drills, Horse Powers, Flax and Hemp Dressing Machines, Threshers, Seed Planters, Cultivators and Broadcast Sowers will take place at Geneva, between the 12th and 26th of July next. (The particular day of the commencement of the trial will be given hereafter.) The competition will be open to all who become members of the Society, and enter their machines for the trial.—Upwards of \$400 will be awarded to the successful candidates, and Inventors are invited to be present with their machines and engage in this trial which will be conducted in a manner to secure practical and reliable results that will be of importance to our country.

Persons desiring to compete, must become members of the Society by the payment of \$1, and enter their names with the Secretary, and implements.

All desired information as to the regulations for the trial will be furnished on application to the Secretary.

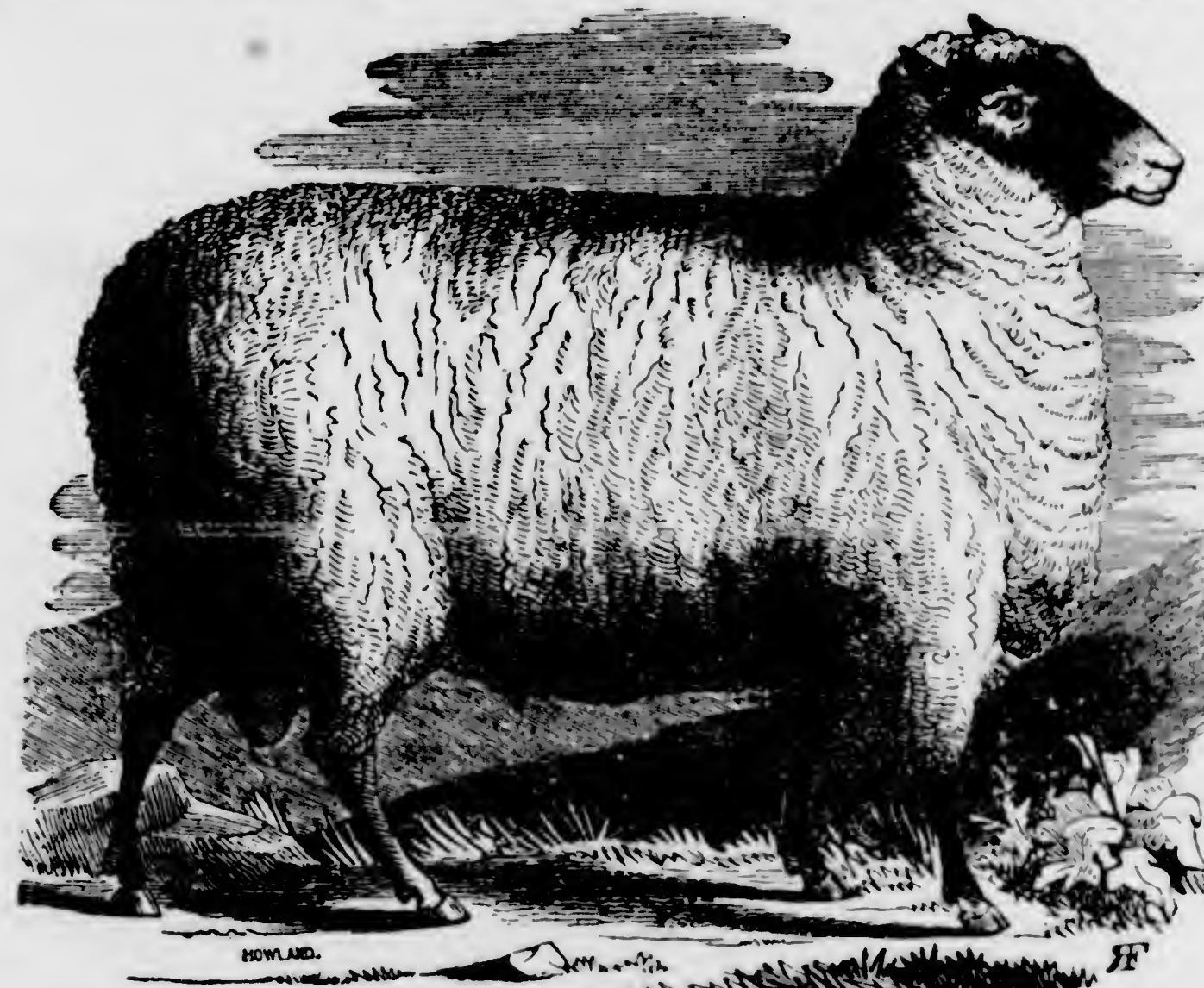
B. P. JOHNSON, Secretary.
Agricultural Rooms, Albany, May 7, 1852.

The South Down.

We give this month spirited portraits of a South-down Ram and Ewe. This fine breed of sheep is valuable, less on account of the quantity and quality of the fleece than for the mutton. In this particular it is esteemed more highly than any other in the English markets, and would doubtless be so in the United States, if raised in sufficient numbers. At present, we believe, comparatively few breeders give attention to the South-downs, although the few in

our State who have bred them, speak in the highest terms of their good qualities. M. Ellman, of Glynde, in Sussex, to whom is mainly due the credit of having, by his judicious breeding, brought the South-down to their present high degree of perfection, and from whose stock the Ram and Ewe, whose portraits we give, are descended, thus describes them:

"The head small and hornless; the face speckled or gray and neither too long nor too short; the lips thin, and the space between the nose and eyes nar-



SOUTH DOWN RAM.

row; the under jaw or chap fine and thin; the ears tolerably wide and covered with wool, and the forehead also, and the whole space between the ears well protected by it, as a defence against the fly.

"The eye full and bright, but not prominent. The orbits of the eye, the eye-cap or bone not too project-

ing, that it may not form a fatal obstacle in lambing.

"The neck of a medium length, thin toward the head, but enlarging toward the shoulders, where it should be broad and high and straight in its whole course above and below. The breast should be wide, deep and projecting forward between the fore-legs,



SOUTH DOWN EWE.

indicating a good constitution and a disposition to thrive. Corresponding with this, the shoulders should be on a level with the back, and not too wide above; they should bow outward from the top to the breast, indicating a springing rib beneath, and leaving room for it.

"The ribs coming out horizontally from the spine, and extending far backward, and the last rib projecting more than others, the back flat from the shoulders to the setting on of the tail; the loin broad and flat; the rump broad and the tail set on high, and nearly on a level with the spine. The hips wide; the space between them and the last rib on either side as narrow as possible, and the ribs generally

presenting a circular form like a barrel.

"The belly as straight as the back.

"The legs neither too long nor too short; the fore-legs straight from the breast to the foot; not bending inward at the knee, and standing far apart both before and behind; the hock having a direction rather outward, and the twist, or the meeting of the thighs behind, being particularly full, the bones fine, yet having no appearance of weakness, and of a speckled or dark color.

The belly well defended with wool, and the wool coming down before and behind to the knee and to the hock; the wool short, close, curled and fine, and free from spiry projecting fibres."



WHITE AND BLACK SWAN.

The Swan is, beyond all question, the bird to place as a finishing stroke of art, on the smooth lake which expands before our mansions. It is perfectly needless, however delightful, to quote Milton and others, lauding the arched neck, the white wings, the oary feet, and so on. Its superb beauty is undeniable and acknowledged; and, to borrow an apt metaphor, we do not wish, in the present volume, to thresh straw that has been twice threshed before, to repeat how lovely the Swan is on the silver lake, "floating double, swan and shadow;" for we might thus run, scissors in hand, through the whole *Corpus Poetarum*. Our object, in short, is simply to point out the best mode of managing them and keeping them.

Any one who lives on the banks of a moderately sized stream, and has a Swan-right on that stream, will probably also have the means of keeping a keeper, who will save him every trouble.

If any brook runs into and from the pond where they are to remain, their escape through that channel must be prevented by sheep-netting, hurdles, pales, or other fencing, which should be continued some distance inland, lest they should walk away, if they cannot swim away. This precaution will be found particularly necessary if there is any main stream in the immediate neighborhood. A feeding-trough may be fixed for them in the pond, in the part where it is most desirable that they should be accustomed to display themselves. Those who are fastidious about the sight of such an object, or who wish to have it thought

that the Swans keep so much in view from purely disinterested motives, (from simple affection to their masters, not from the greedy love of corn,) may contrive to have it hid beneath a bank, or behind a tree or shrub. The trough must be fixed in the pond, on two firm posts, within arm's length of the shore, and raised high enough from the water to prevent Ducks from stealing the food contained therein, having a cover which lifts up by hinges, and so forms a lid, to keep out Rats and Sparrows, and open only in front. Many persons, however, feed their Swans by simply throwing the corn into shallow water. They will skim the surface for the light grains which float, and then submerge their heads in search of that which is sunk. Should any Carp (that fresh-water Fox) be occupants of the same lake, it will be found that they soon learn the accustomed hours of feeding, and they will come to take their share along with their feathered friends. But it is cruel to locate a pair of Swans for the sake of their beauty, in a new-made piece of water, whose banks and bottom are as barren and bare as the inside of a hand-basin. A load or two of water-weeds should have been thrown in, the previous spring, to propagate themselves and afford pasturage. Sometimes, after an old-established sheet has been cleansed at a great expense, it is thought that Swans would now look well there, and they are forthwith turned in, to be starved; whereas they would thankfully have undertaken the cleansing task for nothing. Swan-food exists in proportion to the shallowness and

foulness, not to the extent and clearness of the water. A yard of margin is worth a mile of deep stream; one muddy Norfolk broad, with its oozy banks, labyrinthine creeks, and its forests of rushes, reeds and sedges, is better in this respect, than all "the blue rushing of the arrowy Rhone," or the whole azure expanse of the brilliant Lake of Geneva.—*Or. Poul.*

THE FARM JOURNAL.

Agents.

THE FARM JOURNAL may be had at the following places:—

W. B. ZIEBER, South 3d St., principal agent for Philadelphia.

W. H. SPANGLER,	Lancaster, Pa.
B. F. SPANGLER,	Columbia, Pa.
GEO. BERGNER,	Harrisburg, Pa.
H. MINER,	Pittsburg, Pa.
J. R. SHRYOCK,	Chambersburg, Pa.
H. M. RAWLINS,	Carlisle, Pa.
A. L. WARFIELD,	York Pa.

and of Booksellers generally.

500 AGENTS WANTED.

We are desirous of securing one or more competent agents in every county in Pennsylvania, to canvass for the *Farm Journal*. Our terms are liberal, and we are assured by well-informed friends in every portion of the State, that competent and active agents could not fail to succeed well. We therefore invite persons desirous of taking agencies to address us (*post paid*) on the subject; furnishing us with satisfactory reference, and stating in what particular county they are desirous of canvassing.

The Farm Journal as a Premium.

The warm interest manifested by a number of our County Agricultural Societies in behalf of the welfare of the *Farm Journal*, places us under heavy obligations. Last year the Bucks County Society placed the *Journal* on their premium list (instead of the dollar usually given) and this year, have done so again. The Milford County Society, as will be seen by the resolution below, have followed the good example:

3d. RESOLVED, That the Executive Committee be instructed to substitute the *Pennsylvania Farm Journal* in lieu of the dollar, and in part payment of larger premiums in all cases where the recipient is a farmer and not already a subscriber to the *Journal*, and to such other persons as may be willing to receive it.

We beg leave respectfully to suggest to those Societies whose premium lists are not already made out, to adopt the same system. A volume of the *Journal*, received as a premium, would, we think, be more highly prized than the mere amount of the subscription price—the dollar; as the recipient would be more likely to preserve it, than the money. If every Society in the State would adopt the plan, it would greatly strengthen our hands, and disseminate the valuable truths from time to time presented in the *Journal* more widely. How many more Societies will do it?

Preparations for the Fair.

Our farmers, mechanics, ladies, &c., are making active preparations for the coming Annual Exhibition. We are glad to see this, and hope the feeling in this respect will grow stronger from day to day. At the last meeting of the the Lancaster County Agricultural Society, committees were appointed to co-operate with the Executive committee of the State Society, and so soon as the site of the Exhibition ground is determined upon, (which will be in a few days) arrangements for the erection of the fencing, shedding, &c., will at once be made. A spirited address prepared by a committee of the Society, to farmers and others, has been published and will we trust have the desired effect.

In the name of the Society, we cordially invite persons in every department of business to contribute something towards the Exhibition. Not only do we expect our farmers to go to work energetically, but our mechanics also. The ladies, we are assured, will do their part.

ACKNOWLEDGMENTS.—We are indebted to Mr. Thos. Croft, Seedsman, 309, Market street, Philadelphia, for several packages of seeds, and other favors. We most cheerfully commend Mr. C. and his establishment to the notice of those who are desirous of purchasing "warranted fresh seeds," and any other articles usually found in Agricultural Stores.

Mr. Brown of 309, Market st., Philadelphia, has laid us under obligations for a small sized Iron Force Pump, which for gardening as well as household purposes we have found most excellent and useful. With a small piece of hose attached one person can throw water with it a distance of sixty feet. Mr. B. is also the manufacturer of Gatchell's Patent Hydraulic Rams, upon which important improvements have recently been made. See his advertisement.

The Commissioner of Patents has favored us with a package of garden and field seeds, many of which are now growing finely.

Lincolnshire Pigs. Mr. C. Haldeman of Bainbridge, Lancaster co., will accept our thanks for a pair of fine Lincolnshire Pigs. The Editor of "the Plow," in speaking of this breed says, "they are the largest improved breed we know. They are of a pure white color, very thrifty, and tolerable fine points. They cross well either with the Suffolk or Berkshire, increasing the size of the latter without detracting much from their fine points. They can be fatted at any age, though best after a year old." Mr. Haldeman has a few pairs for sale which he will dispose of at reasonable rates.

W. Canby, of Wilmington, Del., will accept our thanks for a copy of the Address delivered before the Delaware Horticultural Society by G. Emerson, M. D. We have read it with interest and profit.

Work for June.

Every farmer who values healthy fruit trees and good fruit will take the precaution necessary to protect both from the attacks of insects. Caterpillars especially demand attention, as they are the larvae of butterflies and moths, and unless carefully watched and thoroughly exterminated, each successive year demand an increased amount of labor to effect their destruction. So numerous have they become in certain sections that scarce a plant escapes them. Go to work then in good earnest, examine every fruit tree on your premises, and wherever you find the slightest trace of them, cease not your efforts until all are destroyed. Do this and next year your labors in the department will be much lighter.

During the latter part of this and the first of the succeeding month, sow your turnips. By a reference to our last number, page 34, the mode of culture pursued by Mr. Buist, (who, by the way we consider excellent authority) will be found. Do not confine yourselves to the quantity required for family use; as is generally the case; but sow with a free hand; cultivate well, and try the value of the Swedes and other varieties as food for your cattle next winter.—The value of the turnip crop is fully appreciated by English farmers. It is said to be the "sheet anchor of light soil cultivation and the basis of the alternate system of English husbandry, to which every class of the community is so much indebted.

Carrots and Sugar Beets for stock should also be sown. The value of carrots as food for stock, like that of turnips appears not yet to be fully understood. Its cultivation in our State with perhaps a few exceptions, has never extended beyond a small bed in the garden. We are glad to see, however, that our northern neighbors are taking hold of the subject in good earnest, and hope soon to find it awakening a proper degree of interest in Pennsylvania. The fattening qualities of the carrot, unquestionably rank first amongst the root crops. The cultivation is easy, the cost trifling, the yield per acre immense, and the value unquestioned.

Corn will need your careful attention. Weed and cultivate well. Weeds like Caterpillars, are the result of negligence. One year's inattention to them at the proper season, will only double your labors for the next. Grapple vigorously with them this month. Give them no quarter. Serve them in a like manner for a year or two to come and you will save yourselves much work, and secure better crops. Never permit a weed to run to seed; if you do, you will have a thousand perhaps in its place the next year.

Haymaking comes in season during this month.—Every good farmer will have made the necessary preparations for this important season. "Make hay while the sun shines" is an old but excellent adage, which applies as well to the preliminaries to haymaking, as hay making itself. The Forks and Rakes

should all be ready in sufficient quantity and good order. The mows should be cleaned out, and the platforms for ricks constructed; so that when your hay is ready to be drawn from the field, there may be no necessity for stopping your hands to prepare the place to receive it. See that your wagons, ropes &c., are in trim, and your scythes in good order. The following excellent remarks, we copy from the American Agriculturist.

"Many farmers do not consider the scorching effects of our June and July sun, and the consequence is, that hay is too much dried in this country. Unless the grass be very thick and heavy, it will generally cure sufficiently, when exposed in the swarth for two days. When shook or stirred out, it should not remain in this condition beyond the first day, or it will thus lose much of its nutritive juices; nor should dew or rain be permitted to fall upon it, unless in cocks. It is better, after partially drying, to expose it for three or four days in this way, and as soon as properly cured, place it under cover. It is a good practice to salt hay when put up, as it is thus secured against damage from occasional greenness; and there is no waste of the salt, as it serves the double object, after curing the hay, of furnishing salt to the cattle and manure heap.

"Clover should be cut after having fully blossomed and assumed a brownish hue. By close cutting, more forage is secured, and the clover afterwards springs up more rapidly and evenly. The swarth, unless heavy, ought never be stirred open, but allowed to wilt on the top. It may then be carefully turned over, and when thus partially cured, placed in high slender cocks, and remain till sufficiently dry to remove into the barn. Clover may be housed in a much greener state, by spreading evenly over it in the mow, from ten to twenty quarts of salt. Some add a bushel, but this is more than is either necessary for the clover, or judicious for the stock consuming it; as the purgative effects of too much salt induce a wasteful consumption of the forage. A mixture of alternate layers of dry straw with the clover, by absorbing its juices, answers the same purpose, while it materially improves the flavor of straw for fodder.

The scorching heat of June, July and August, demand of the farmer more attention to his manures than at any other season of the year. We here take occasion to commend the adoption of Manure Sheds, instead of the old practice of exposing the contents of Stables &c., to the rain and sun. We know of many persons who have adopted the shed system, and who are highly satisfied with the increased value of the manure thus protected. Manure sheds may be so constructed as to answer the double purpose of sheltering both cattle and manures; and at a comparatively trifling expense.

But whether you have sheds or not, the droppings of the cattle in the stables as well as around the barn yard should be thrown to the common heap, and thus, in part, prevent the loss which always arises from the exposure to the hot suns of summer. The weeds pulled or cut, should all be carted to the principal heap, where they are speedily converted into fertilizing matter, instead of being thrown into

the fence corners, to poison the atmosphere and strengthen the growth of other equally noxious plants. Thousands upon thousands of dollars worth of valuable fertilizing materials, are annually lost to the farmers of Pennsylvania, by a want of care in this direction. We had intended, as promised in our last, to continue the subject of manures; but as one of our correspondents has taken hold of it, we give way to him with pleasure.

IMPROVED FOWLS.—Never perhaps has the "hen fever" prevailed to as great an extent in Pennsylvania, as at this time. We are literally crowded with inquiries from every section of the State. Many friends in the various counties have requested us to purchase for them. This we have done, although for some time past, good, pure stock has been scarce and high. In a former number of the Journal we referred our readers to several dealers and breeders in Philadelphia and elsewhere. Amongst these were Mr. P. Hunt, of West Philadelphia, from whom we have purchased several pairs of Cochin China fowls, which for size and proportion, as well as for other excellent qualities, we think fully equal to any we have ever seen, and are assured that they may be relied upon as pure descendants of imported stock.

Messrs. Gould and Arnold of Lancaster City, have on hand at the present time, a number of very superior Shanghaes. Their stock they assure us, are lineal descendants from recent importations, and are truly noble fowls. We have placed one of them in our yard and have no hesitancy in recommending them to the attention of those who desire to purchase. Messrs. G. & A. are ready to fill orders at a few days notice, and will guarantee satisfaction to buyers.

If any of our friends desire further information, or wish us to make purchases for them, we will cheerfully do so.

FRUIT, GRAIN, &c.—We are pleased to learn from our exchanges, that the anticipations of a failure of the fruit crop will not be realized in Pennsylvania.—From every section of the State apples, pears, cherries, plums, apricots, &c. promise abundance. In some localities, the peach crop will be a total failure, in others there will be a tolerable yield, and in some places an average crop. The peach trees generally, however, have suffered. Much of the young wood has been destroyed, and it will require a season or two for them to recover from the effects of the severe cold of last winter.

The Grain Crop.—From present appearances the coming harvest will not be as abundant as the last. Some of our farmers anticipate an average yield, while others not more than half a crop.

Corn.—The corn never looked better in Lancaster county. The young plants are vigorous and thrifty, and their color fine.

Potatoes.—Immense quantities of potatoes have been planted this season. The high price which this esculent has for months past commanded has led to this. Potatoes of a good quality cannot now be had for less than from \$1.25 to \$1.50 per bushel. We have never seen the potatoe crop more promising than at this time. If the season continues favorable, Pennsylvania will be able to supply two or three of her sister States next year.

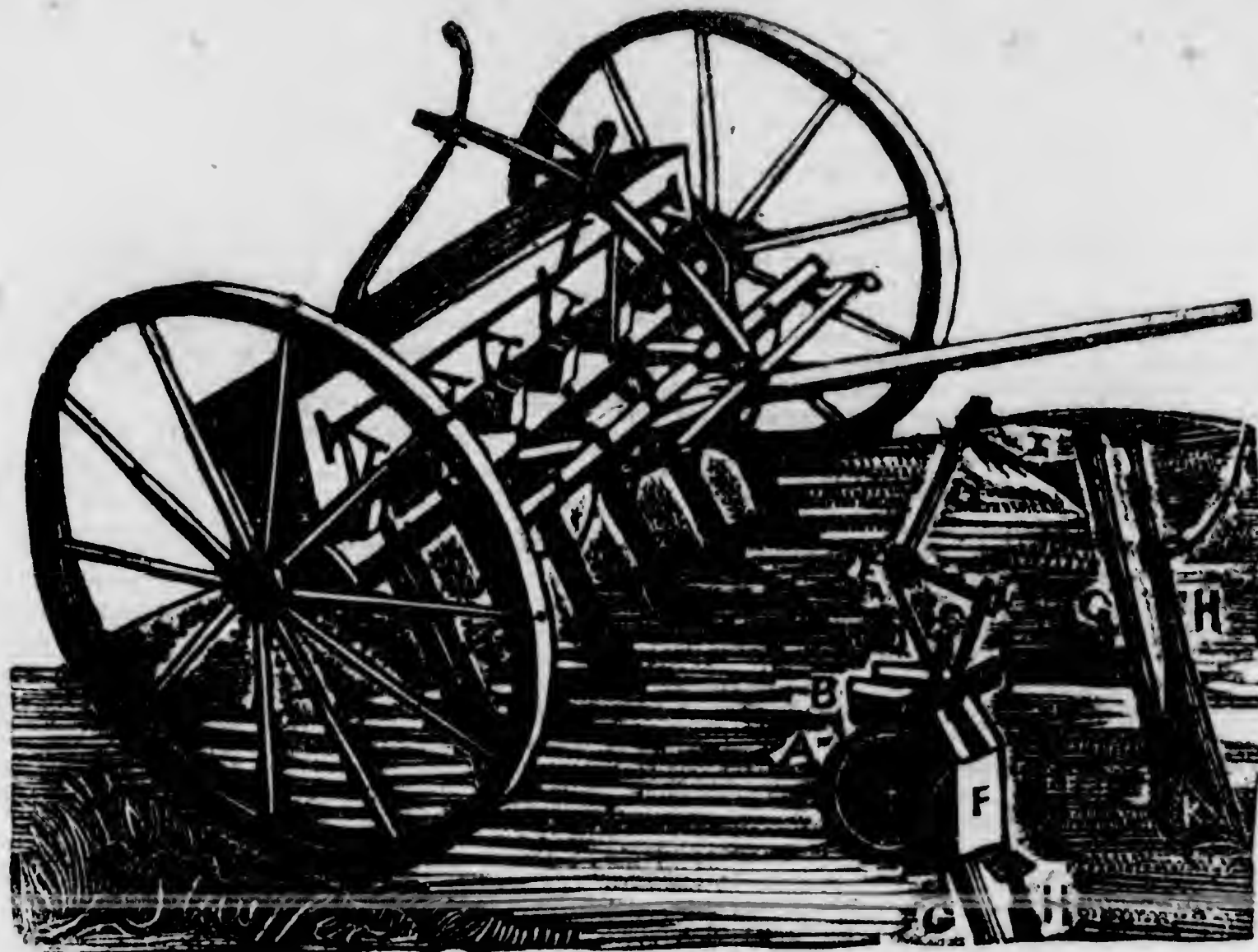
WRITE! WRITE!! WRITE!!!—We want information upon all subjects pertaining to agriculture.—Farmers, those of you who have not been in the habit of writing for publication, do not let the mere idea frighten you. Try it once and perhaps you will be encouraged to try it again. Write! if you can manage to pen but a dozen lines. The next trial will be easier. Write in your own language, and do not feel that it will be too plain to be understood. The plainer, the better. We are laboring for the great mass of working men, as well as for the scientific and learned—our desire is to present truth however simply attired, and therefore desire the results of your practical experience. Sit down and try it

SUBSCRIPTIONS TO THE NEW VOLUME.—We would be ungrateful indeed, were we not to acknowledge our indebtedness to a great many kind friends, for their efforts in behalf of the journal. Thus far but seventy of our old subscribers have fallen off; while our list of new subscribers has been largely increased. But large as have been the additions to our list, we would be pleased to have more! Will not our friends continue their exertions? We hope they will?

Foreign Quarterly Reviews. *The Edinburgh, Westminster and North British Reviews* have been received. Messrs. Leonard Scott & Co. are entitled to thanks of every lover of sound literature for the prompt, handsome and cheap manner in which they get up these able reprints. They are always welcome visitors to our table, and should be to every one who values delightful intellectual excitement. The whole four of the Quarterlies, with Blackwood, may be had of the publishers for \$10. Address Leonard Scott & Co., 79, Fulton street, New York.

Saxton's Rural Hand Books. *The Hive and the Honey Bee, The Hog, The Poultry Yard, and the Horse*, are the titles of four neat little volumes, just issued from the press of C. M. Saxton, New York.—These books are just what they profess to be—hand books of reference. They are adapted to all classes, are convenient in size, and so cheap that the price of the whole is really not more than the value of any single one of the series. Price 25 cents each, or \$1 for the four. They can be sent by mail.

Model Architect, No. 11, sustains fully the high reputation of the preceding Nos. We hope to be able in our next to present one of the beautiful designs contained in the Architect, by which our readers will be enabled to form an idea of the character of the work generally. E. S. Jones & Co., Philadelphia.



THE AGRICULTURAL DRILL!

A Silver Medal awarded by the Maryland State Fair.
Patented November 20th, 1849.

Description of the seeding apparatus. A, is one of a series of Iron Rollers or pulleys, fastened to an Iron Rod or Axle, which revolves with the wheel of the machine; fitting to a curved and grooved casting B, attached to the bottom of the hopper, corresponding with a bevelled opening in the latter, through which the seed is admitted and carried forward by the roller. The quantity admitted is regulated by means of an Iron Rod along the entire front of the hopper, to which all the sides are firmly attached and kept in place by springs J. They are elevated or depressed by a lever D, attached to said rod and operates simultaneously on each side and groove. The lever D, is held in its position by means of the catch I, having a series of teeth or notches. The roller receives the seed in proportion to the size of the opening in the groove, and retains it by means of a cap F, in front of each, and conveys it to the tube G, through which it is discharged, terminating in a cone K, which scatters it across the entire furrow made by the teeth or shanks H, in front, having a broad base of four or more inches.

The object of the invention is to secure an equal distribution of seed in the drills either in ascending or descending hills; to regulate the exact quantity sown per acre, to distribute and scatter the

seed in the drill, from 4 to 5 inches in the ground, so that it will be more perfect in its growth and yield more than if sown by those in ordinary use; in fact, possessing many advantages that cannot fail upon examination to strike all, as the accompanying certificates from competent judges and practical farmers express it, as the best machine of the kind in use.

The broad shovels and cones operate in like manner as by making the furrows with a hoe and sowing by the hand; hence peculiarly adapted for the South in sowing Rice. By elevating the cones the machine sows in a manner broad cast.

We the undersigned, after using Mumma's Patent improved Seed Drill, beg leave to recommend it to the public as one of the best, if not the very best machine for the purpose, [as expressed above], that is now in use.

Signed David Kinsey, Henry Hershey, Andrew Ebersole, John Eversole, Chas. Rodes, John Garver, M. Miers, Jacob Shope, M. D., Samuel Wenger, Peter Eversole, Joseph Hershey, John Lingle, J. Miller, Geo. Noll and Michael Noll, of Dauphin co.; S. P. Sherick, Jacob Krider and John Hunsecker of Lebanon co.; Wm. Berry of Perry co.; and Samuel Frantz of York county.

The subscriber, residing at Springville, Mt. Joy Post Office, Lancaster co., Pa., is now prepared to sell the entire right, manufacture and vend this valuable Machine for Townships, Counties, States or Territories, upon reasonable terms.
May, 1852.] JACOB MUMMA, Patentee.

PREMIUM STRAWBERRY "MOYAMENSING."

THIS new and very superb variety raised by G. Schmitz, Esq. near Philadelphia, and to which a special Premium was awarded by the Pennsylvania Horticultural Society, was purchased by the subscriber, and is now after a fair trial of three years, for the first time offered to the public.

It possesses advantages over all others that I have as yet seen, or cultivated—is remarkable for its robust and vigorous growth—perfectly hardy, enduring the extremes of heat and cold, is very productive, producing a greater average of large berries from one plant than any other, and nearly equal in size to the "Hovey's Seedling." Its great merit is its rich and high flavor, in which it excels all others—it is much better adapted for market, (for which purpose I am growing extensively) as its fruit is not so easily injured by carriage. Strong Plants now ready for delivery at \$2 per doz., or \$12 per 100.

JAMES M. TAGE,
Burlington, N. J. Address orders to Henry A. Dreer, Seedsman and Florist, No. 59, Chestnut street, Philadelphia.
April, 1852.

GUANO AND PLASTER.

THE subscribers offer for sale at the lowest market rates,
1000 Tons Dry Patagonia Guano,
500 " Government Peruvian Guano.
500 bbls. Ground Plaster.

The quality of the above is unsurpassed, and can be recommended with confidence to farmers and others in want of the articles. A liberal deduction made to Country Merchants.

ALLEN & NEEDLES.

No. 22 & 23, S. Wharves, First Store above Ches. st., Phila.

THE FRUIT-GROWER'S HAND-BOOK.

Encouraged by the very warm commendations of this work, received alike from experienced Horticulturists and from the wholly inexperienced, the author ventures with some confidence to submit it to the public at large.

Notes of all the important questions on fruit culture asked of the writer during the last ten years, with a thorough research of Pomological works, have contributed to render this volume as complete as possible, in convenient compass.

To the lot-holder who wishes to make the most of a few plants and little room, as well as to the extensive planter who wishes to arrange and cultivate his gardens in the most economical and profitable manner, the Hand Book will be found a useful companion for frequent reference.

Price, FIFTY CENTS. Two copies, post free, for \$1.
WM. G. WARING,
Address, Boalsburg, Centre co., Pa.
sept. 1851.

FINE STRAWBERRY PLANTS.

Strawberry Plants of several varieties and fine quality can be had by the hundred or thousand at the low price of \$1 per hundred, by addressing with amount enclosed,

JAMES O'CONNOR,
Safe Harbor, Lancaster co., Pa.
(sept. 1851.)
All orders will receive prompt attention.

GUANO.

Peruvian and Patagonia Guano for sale in lots to suit purchasers by
J. CASSEY & SON,
No. 121, South Water st., a few doors above Dock st., Phila.



VOL. 2.

LANCASTER, PA. JULY, 1852.

NO. 4.

THE FARM JOURNAL.

S. S. HALDEMAN, }
A. M. SPANGLER, } EDITORS.

Harmony of Science and Practice in Agriculture.

In retrospect of events in the history of agriculture in the United States, we have a striking exemplification of the vast influence which the example of a few enterprising, public spirited individuals in a State or county may exert. In agriculture, as in every other human pursuit, the majority always depend upon the few for the correct principles upon which its chief operations are founded, and for an explanation of the manner in which its various processes are to be altered to suit the peculiar difference of soil, climate, &c. It is to these men that agriculture owes its present improved condition, and it is to them, or to spirits like theirs, that we are to hope for still greater progress in future. They lead the way by making the earliest experiments, running the risk of success, and when successful, by establishing their improvements for the benefit of their fellow men. Not unfrequently their costly experiments are met with sneers and ridicule, particularly when they prove failures. But when success attends their efforts, the mass are eager and willing to avail themselves of the knowledge these pioneers have acquired, and adopt the experiments, the value of which their science and patience have tested.

When (as is sometimes the case) scientific men have failed in their efforts to improve the condition of agriculture, (a result arising more perhaps from a want of practical business habits, than from error in their theories,) science has been compelled to bear all the blame, while mere practical farming is exalted to the skies. But a candid answer to the inquiry, "What has science done, or what is it capable of doing for husbandry?" would serve to place these master-spirits in a proper position, and teach those who contemptuously deride the men who are laboring with and for them, that notwithstanding the

vaunted boastings of the practical *thousands*, all their skill and knowledge can be traced to the researches of the scientific *few*. We have before alluded to this subject, and do so again, because we conceive it to be one of vast importance to all. If the views of those who put no faith in book farming are to prevail—if we are to say to agriculture, "here thy further progress shall be staid"—if new improvements are to be eschewed, and men who are willing to devote their scientific attainments and skill to the promotion of the farmer's interest driven from the field, it is very apparent that even the present condition of agriculture cannot be maintained.

But why should science and practice become antagonists? Are not their objects identical, and are they not vitally essentially to each other? If science is needed to point out the way, practice is just as essential to carry into effect her beneficial teachings. But singular as to the intelligent and reflecting mind this disposition to sever pursuits (or branches of the same pursuit,) which *should* be united may appear, a satisfactory reason can be assigned for it. Those who have most bitterly opposed the advancement of scientific agriculture, are they who least understand the true *money value* of it to the farming interest generally.

Reduce scientific theories and principles to the standard of mere dollars and cents—demonstrate to a certainty their truthfulness and sure profit, when practically applied—convince the skeptical husbandman that every operation of the farmer; however trifling, is the result of applied science—teach him that the construction of the mould board and almost every other implement in common, daily use, involves the highest mathematical principles—satisfy him of the fact that without the aid of scientific research and investigation, tilling of the soil would never have advanced a single step beyond its primitive condition, and finally, prove that his pocket is never so safely protected as when guarded by a head well stored with a knowledge of the broad basis upon which his profession rests, and his opposition will vanish like a

VOL. II.—

bubble on the ocean's breast. How this Herculean task is to be accomplished, we shall reserve for another article, merely remarking in conclusion, that to the agricultural press mainly, must we look for the consummation of this great object.

American Pomological Congress.

In our last, we published the circular of Dr. W. D. Brincklé, of Philadelphia, announcing that the third session of the Congress of Fruit Growers would be held in Philadelphia, on the 13th of September next. There can be little reason to doubt that this will be not only the largest, but the most interesting session the Congress has yet had. A more suitable place than Philadelphia could not have been selected, although it is to be regretted that an earlier day had not been fixed upon for the meeting. By the 13th of September, the season for many of our finest peaches will be past, and as the peach flourishes in all its glory in the country surrounding Philadelphia for many miles, a fair exhibition of all the fine varieties of which the district can boast, would be very desirable. However, as this is not possible, we must do the best we can.

We most earnestly commend this meeting to the attention of fruit growers generally, whether horticulturists by profession, or mere amateurs. The display of fruits will be remarkably fine. The varied products of every section of our widely extended country, with all its diversity of soil and climate will be exhibited, and the results of particular methods of culture shown. As such, the exhibition will prove a school of instruction to all who may attend. The convention will be composed of the most successful and distinguished fruit growers in the United States—veterans in horticulture, whose opinions upon the merits of the various fruits submitted to their judgment, the method of culture, &c., will be ripe with interest and instruction.

But while we call upon fruit growers generally, to encourage this laudable enterprise, we especially call upon our Pennsylvania horticulturists to show their hands in the convention. We have strong faith in the ability of the "Keystone State" to compete successfully with any of her sisters, and we trust for the sake of her own reputation she will do it. It will afford us pleasure to furnish every information of which we are possessed, to those who may desire it, or forward, at the proper time, any specimens of fruit that may be sent to us.

Seedling Fruits—A Request.

When, last fall, we asserted that the southern portion of Pennsylvania, was not only one of the best fruit growing sections in the United States, but the very best for peaches, pears, cherries, apples and plums, our assertion was regarded as rather a bold one. It would not have been made had we not been

firmly convinced of its truthfulness. In order, however, that we may not appear in the light of an empty boaster, we earnestly call upon those who have the evidence in their possession for a confirmation of what we then asserted. We know that in Lancaster county, but especially in the city of Lancaster and its immediate vicinity, there are a great many very fine seedling fruits of different kinds. Most of these seedlings, although of superior merit, are not known beyond the limits of the immediate neighborhood in which they originated. A (few, among which is the Gen. Hand plum,) have been heard of abroad; but the number is small. Than the *Hosen Schenck* pear there is none earlier or finer. The *Copper* plum is a superb fruit. Seedling peaches of monster size, and delicious flavor, abound in every direction. We have on our premises several seedling peaches, which we have no hesitancy in asserting to be vastly superior in all that constitutes good fruit, to hundreds of others to which high sounding titles have been given and from which the originators realize immense profits in the sale of trees. Cherries, too, of the most superb varieties, (and many of them seedlings), are to be found in abundance.

A few days since we had the pleasure of tasting some seedling strawberries, raised by a gentleman in the vicinity of Lancaster, which, in point of size and flavor, were remarkably fine. We consider them decidedly superior to Hovey's Seedling, being more prolific, although perhaps not quite so large.

Now the history of these fruits deserves to be written, and it is our intention to prepare a short account of each specimen that may come under our notice, and in furtherance of our intention, we respectfully ask that those who have fine seedling fruit of any kind, will favor us with a sample, and the history of it. By this means we shall be enabled to arrive at correct conclusions both in regard to the quality and origin of the fruits. A committee has been appointed by the Lancaster County Agricultural Society, for the purpose of investigating this subject. They hold their meetings monthly, and the friends of horticulture are respectfully and earnestly requested to aid them in their labors, by sending in contributions of fine fruits, &c.

Shanghai and Cochon China Fowls vs. Dung Hills.

Much has been said and written for and against the different varieties of improved fowls now claiming so large a share of public attention. The extravagant prices asked, and frequently paid for superior specimens of the various breeds, have led many persons to regard the attempt to introduce them to our farmers generally, as a matter of speculation, and that it will have a termination similar to the *morris multicaulis* mania of bygone days. We do not think so. The little experience we have had in breeding the new varieties, induces us to believe that the soon-

er the common dung hill fowls are dispensed with, and their places supplied by some of the larger breeds, the sooner will our farmers begin to realize profit from their chickens. Although five or ten dollars may at first appear an extravagant price for a pair of chickens, it is really not so, when the advantages that will follow their purchase are taken into consideration. No person who has ever seen fair specimens of Shanghai or Cochon China fowls, will for a moment dispute their superiority to the dung hill fowl in point of size. Here then is one important point in their favor. Large fowls, if young, will certainly, always command a better price in market than smaller ones. But they possess other advantages. Well cared for Shanghai's, attain a larger size at five months than the common fowls at twelve. We have now in our flock a pair of Cochon Chinas, three months old, which weigh 8½ pounds, the cock 5 and the pullet 3½ pounds. But it is contended by those who stand opposed to "big chickens," that the greater amount of food they consume than the smaller ones, more than overbalances the advantages of their increased size. This too, however, we conceive to be a mistake. We have a few common fowls, which are kept principally for hatching—their small size giving them for that purpose, a decided advantage over the heavier Shanghai. Careful observation has fully satisfied us that they consume as much food as the larger ones. The common fowl is a much more ravenous feeder than the Shanghai. If favorite food is given them, nothing short of repletion will satisfy them. Not so with the Shanghai or Cochon China. They feed as they move—slowly, and appear to turn every grain of corn or wheat to advantage.

Much has been said in regard to the superior egg-producing qualities of the Shanghai and Cochon Chinas. To a limited extent we have tested this point also, and so far as our experience goes, unhesitatingly yield to them the palm.

Our common fowls are as good specimens as any we have ever seen. We paid a high price for them, for the special purpose of testing their egg-producing qualities, as compared with our finer fowls, and for hatching as before stated. The result has been, that with the same food—same lodging, and same attention in every particular, the Shanghai's have beaten them two to one.

Another point in favor of the Shanghai is, that they are far more sociable, not nearly so much inclined to be mischievous and even if thus inclined, far less capable of doing damage; as the remarkable shortness of their wings, and the great size of their bodies prevents them from flying over fences, into the garden or fields, or injuring the grain in the stacks or mows. For these and other reasons, we feel inclined to give the improved breeds the preference over the common ones, and we believe it would be

economy on the part of our farmers generally, to introduce them even at a cost of ten dollars for the first pair. But while recommending their introduction, we would at the same time caution purchasers against the impositions practiced on the unwary, by unprincipled dealers. On several occasions during the past few months we have seen fowls purchased in Philadelphia at high prices, and represented as Shanghai or Cochon Chinas, which were perfect liars upon the fine breeds they were designed to represent. If you wish good stock, buy from dealers and breeders only, whose characters are known to be good. We have recommended several dealers whom we believe will act fairly, and from whom we have purchased stock for our own yard.

Gapes in Chickens.

For several years our early chickens nearly all die with the gapes, a disease that is very fatal in this neighborhood. Will you or some of your correspondents give us through your paper, a preventive and cure for the above disease. It would be worth more than several years subscription to the Journal.

J. R.

[Several remedies have been given for the gapes. Salt given in their water has been recommended.—Spirits of Turpentine mixed with rice has also been used with success. The generality of breeders agree that the gapes are produced by the *fasciola*, a parasitic worm in the windpipe, which may be removed by the introduction into it, of a small feather, without any web except at the farther end. Give the feather a few turns and the *fasciola* will be either dislodged and coughed up by the chick, or brought up on the end of the feather. We have tried this plan, but never found any worms. Our plan is, (and we have never yet had a chicken die with the gapes) to have mother and chicks, comfortably housed at sundown—keep their drinking water in shallow iron vessels, and give them, once a day, a little ground Cayenne pepper mixed with corn meal. In the morning they are permitted to run at large as early as their inclination prompts them.]

I wish to hear from some of your patrons, the best plan for winter-feeding cattle for beef. There are different opinions on the subject. Some say keep them in the stable all the time. Others say turn out about 4 hours in 24; others again just feed and turn out. I would just say, in this part of the county we have a sufficiency of shelter for stock in winter to protect them from storms.

J. R.

Mr. Editor: My neighbor C's barn is very much infested with the weevil; and having sustained a considerable loss, as he believes, last year, he fears their working in his wheat after the coming harvest. Is there any means of destroying them? If you or any of your correspondents can give us early information on this subject, we will remember the Journal to our neighbors.

Yours &c.,

A. OWEN.

Shirleysburg, Huntingdon co., Pa.

Communications.

Lunar Influence.

MR. EDITOR.—Medicus in your journal for May, after remarking with great apparent self complacency, on my reply to David Taggart—not Franklin, as he erroneously supposes—triumphantly asks me for one proof by experiment. I do not exactly understand what he means by “proof,” whether he expects me to come to Philadelphia, and prove my theory before his eyes, or whether he merely wishes me to tell him the result of some of my repeated experiments. Judging from the tone of his May article, he will hardly consider my assertion proof. So I will propound certain experiments, which he may make himself, and let the result, be the proof, which he demands. First though, I would ask the medical gentleman, how he separates the *influence*, from the *light* of the moon?—Is not light the vehicle of all solar influence, or perhaps the subtle agent that holds these influences in solution? Does not the light of the sun give a sensation of heat, either by a direct affusion of caloric, or by enkindling the gaseous particles of the atmosphere, or elaborating the chemical exhalations of the deep earth? (Can Medicus decide?)

Who then ever dreamed of separating the more subtle influences of Luna from her borrowed light? In the face of all the “demonstrations which have been made by the medical faculty,” I must still aver that the moon does exert an obvious influence, on some diseases, corporeal and mental. I have known instances too marked to admit of question. One, a man not insane, but invariably afflicted during the last quarter of the moon, with unreasonable melancholy and apprehensions of evil; even to such extent, that he deemed his best friends, blood thirsty seekers of his life. His poor tormented wife, was in the habit of saying to such persons as inquired concerning him, “Oh he has got one of his monthly turns.” I can procure for Medicus affidavit of this case—but the poor man went long since to that shore,

“Where moons shall wax, and wane no more.”

I knew a young lady of deranged intellect, who always laboured under deep despondency during “the last quarter” and who once cut her throat (not fatally Mr. Medicus,) once climbed into a well, and once swallowed a large quantity of needles and pins, beside several other similar feats, which she performed regularly in the “dark of the moon.” Now do not elucidate the subject by affirming that she chose that time, for the benefit of the *obscurity*, for she cut her throat, jumped into the well, &c., in broad day-light. I can substantiate this case also. Again I can name some persons of deranged minds, and monomaniacs, who were worse at certain seasons of the moon—some at the change, and some at the full. I repeat, that many chronic diseases also wax and wane with the moon. Every “old woman” knows, if Medicus does

not, that Nature has certain periods, rounded by a circuit of about twenty nine days, and regularly recurring, in millions of subjects. Now Nature has no index to count by weeks—no visible dividend of the time into these periods, excepting this same moon. If Medicus says these periods, if dependant on the moon, would recur at the same time, in all subjects—I reply: if life in all subjects commenced at the same time, or if these periods in all subjects commenced at the same phase, no doubt the recurrence, if nature were undisturbed, would be simultaneous.

Will Medicus condescend to read the following extract from an article by Prof. J. M. Comings, published in August 1851, in the American Journal of Medical Reform, issued at New York.

“It is now,” says the Prof. “an established fact, that epilepsy, some forms of insanity and asthma, recur at intervals regulated by the moon; so of various nervous complaints. In one of the annual reports of our State Lunatic Asylum, there is a table of fifty cases of periodical excitements, and their relations to the moon. This is not doubted, and when we reflect that the atmosphere is more or less under the direct agency of the moon, it will not be wondered at, that atmospheric changes have so much influence on the sick. It is now generally admitted, that diurnal and seasonable atmospheric variations in the barometer, thermometer, electrometer, and hygrometer, are distinguished by physiological and pathological changes and most of our scientific men believe that the moon’s phases and positions are coincident with atmospheric changes. We can reasonably infer then that the moon has an influence on vital actions.”

What becomes now of the “clear investigation and actual experiment,” of which Medicus boasts so confidently? He asserts that all idea of “sol-lunar influence in the production of insanity has long since vanished before the light of modern science, and medical investigation.” What a wide mistake! In this, as in many other instances, “modern science” bears about the same relation to Truth, that atheism does God, and the proud sneers of the one against the object of its enmity, equally with the supercilious ridicule of the other, will perish in contempt, while the great Principles, which they have impotently assailed, remain glorious and unimpaired forever.

It would appear that Medicus, in common with his kindred blasphemers of the moon, do not know that the divine doctrine of Astrology, including the nodic and zodiacal influence of the moon, in conjunction with the planets, is a veritable science, and not a phantom of darkness, and offspring of superstitious ignorance. That the signs of the Zodiac, with the conjunction of the moon and planets, were not arbitrarily established, and nature then required to accommodate herself to their influences—but that the ancient astrologers who devoted their lives to the subject, bequeathing their uncompleted conclusions

to their disciples, through many generations; and who arrived at an excellence of wisdom and power truly marvellous; commenced by long and patient observations of the phenomena of the atmosphere, with all marked mutations in the animal and vegetable kingdom; as also the workings of the human mind. These they referred to the various stages of the moon, to her place in the heavens, and her conjunction with the planets; their unmistakable influence being also taken into the calculation. Finding the same phenomena generally occurring under certain aspects, these mighty Astrologers fixed the *signs*, expressing them by hieroglyphical characters, denoting their influence, and the portion of the human frame particularly affected, at certain seasons. Superstition which is always the child of ignorance, has obscured this science with the thick mists of fable, and erroneous observations; these however no more annihilate the truth of astrology, than clouds which veil the earth, extinguish the sun, by preventing him from shining upon us.

“Modern science” is like the boy who made seven tops while his father constructed a wagon wheel, and then boasted himself the superior workman.

I really beg pardon of the truly gentlemanly Editor of the Journal for the monopoly of valuable space, but I must yet give Medicus his experiments. First we test the influence of the moon in her nodes. If Medicus will lay a board on young growing grass, when the moon is in her *descending* node, he will find on taking it up after a week or so, that it has smothered the grass under it, and settled close to the earth. A similar board similarly placed, in the time of the moon’s *ascension*, will not do so. He will find on taking it up, after the same interval, that the grass has continued to grow under it, apparently lifting the board with its growth. Next for the phases, he shall select a head of the large double French marigold, he shall have no seed but what grows in this head. He shall plant some near the full of the moon when the sign is in Gemini or Libra; they will produce large double flowers. He shall plant the same head of seeds near the change of the moon, and the flowers will be single; and if the sign be at Leo or Scorpio, they will not develope even one full row of petals.

He shall sow, plant, or transplant herb, vine, or tree when the moon is near the full, and the *sign* of Virgo, and he will have abundance of blossoms, and of long succession, but great paucity of seed or fruit. He shall transplant trees, or cut down weeds, briars or thistles, when the moon is old, and in the *sign* of the Heart, and if they do not die at once, they will never thrive, but dwindle away and perish.

When Medicus shall have made these experiments, and witnessed their results, year after year, he will become a convert to the theory of Lunar and Stellar influence; and though like hundreds of others he may

know nothing of the astrological principles by which nature is governed; he will believe the results which he sees, and cannot controvert. Then I shall expect to hear from him again. LYDIA JANE PIERSON.

Plowing in Clover.

MR. EDITOR: In the last number of the “Farm Journal,” you ask farmers to write for it, if but a few lines, and as I have never yet had an attack of “ink mania,” I thought I would comply with your request. I read Mr. Gowen’s address, delivered before “the Lancaster County Agricultural Society,” with pleasure and profit to myself; but there is one part of it, which I think he gave hastily and without due reflection, and which I consider erroneous, and liable to mislead young farmers of the interior, who have not the means of purchasing, nor the facilities of getting high priced manures. I have reference to that part of the address, where he deprecates “the plowing in of Green Crops as a succedaneum for manure.” he states too, that eventually, if persevered in, it will impoverish the soil. This I consider a grave error, and I had hoped, that some abler farmer would have in your last issue, disproved this wholesale statement; but as no one has done it, I will try and prove that Mr. Gowen is incorrect in this part of his address. I have not the vanity to suppose, that I can teach so eminent and able an agriculturist as Mr. Gowen any thing new, but I do think, if he were to look at facts, and not depend too much on hypothesis, that he would alter his opinion so far as Clover is concerned. Who among the farmers of Lancaster County has not found that by plowing in Clover, that he has enriched his soil? And has not experience taught them that “the acidulated water of partly grown clover is manure indeed!”—What other green substance adds so much fat to our cattle, as this partly grown clover? no matter how “acidulated” it may be. If it is essentially acid, why do not our domestic animals eat the “sorrel” with as much avidity as the clover? The fact is, clover is not acid, and chemistry teaches us, that there is as much fertilizing property in it, as in any other vegetable substance with one exception. Another fact is, that it is the cheapest and easiest mode of adding fertility to our lands, and one too that I hope will be persevered in, until something else be discovered that will be easier and cheaper.

Boussingault in his analysis of clover gives it	
Carbon,	47.53
Hydrogen,	4.69
Oxygen,	37.96
Nitrogen,	2.06
Ash,	7.76
	100.00

This is I believe, as correct an analysis as is usually obtained, and what other vegetable substance except the pea straw contains as much Azote or Nitro-

gen as this? Ammonia the most powerful of all fertilizers, is composed of Nitrogen 14, 15, Hydrogen 3, and it is principally these two elementary substances (H. and N.) that gives to the clover its fertilizing properties. Its net work of roots add humus, to the soil, for its principal nourishment is from the sub-soil into which its tap roots have been traced to the depth of thirty-four inches, thus adding organic matter from which the cereals get their food. Dr. Lee says, "Instead of impoverishing the soil, a sound public policy demands that we should increase its natural fruitfulness, to meet the increasing wants of an ever augmenting population. To achieve this result in the most economical manner, recourse must be had to the agency of growing vegetation. Among the plants best adapted to the improvement of land are the grasses, trifolias, legumes, turnips, and other root crops. In skillful hands, these can be so managed as to produce a great deal of cheap manure to enrich the surface of the earth, while the substance of the manure itself will be mainly drawn from the subsoil and the atmosphere." I have now given the chemical composition of clover, which gives us really more fertilizing principle, than the excrement of cattle fed on the hay in a dry state. Cattle excrement gave by the same Chemist, carbon 42.8, hydrogen 5.2, oxygen 37.7, azote 2.3, salts 12. The dry excrement of the horse contained hydrogen 5.1, azote 2.2. Thus we see that chemistry teaches us that green clover really contains more fertilizing properties than the excrement of animals fed on it, and it teaches us, too, that clover plowed in will really "pay better" than to make into hay, feed to cattle, and then cart back again to the field; losing part of its nitrogenous properties by the process. We can get no manure that will "pay as well" and, is so easy of application, requiring no extra labor; and none that adds more permanency, or contains so much fertilizing properties in so cheap and easy manner, as the clover plowed in. Facts and experience teach us the utility of plowing in green crops to increase the fertility of our lands, and I earnestly hope that the practice will increase and go on increasing, until every husbandman in the land, shall make it his duty to plow in green crops in every rotation.

"Science can do no more for the agriculturalist, than to establish general and correct principles to guide his practice and researches. But the agriculturalist should weigh carefully all the facts and the large experience of thousands, which other cultivators of the soil have recorded for his instruction and benefit." These are the principles which should govern every farmer in our land, and it is only careful observation, and a multitude of facts, that should induce him to give the weight and power of his name, in favor of or against any of the common principles of rotation of crops.

B. F. G.

Perry County, Pa., June, 14 1852.

Random Recollections and Remarks on Fruit Culture in Lancaster County,

Or a Comparison of Fruit Culture Forty Years since with the present time.

[CONCLUDED.]

Touching the subject of neglect or carelessness of farmers not giving their trees the proper cultivation, I have seen so many articles, and heard verbal remarks on the subject, that it appears to me necessary to try to vindicate my brother farmers from so unjust an aspersion.

Even you, Mr. Editor, drawing an imaginary sketch of the "Model Farmer," in the *Journal* for Nov., under the head of "the farmer who had nothing to learn," have been, unwittingly, I trust, led into the popular error; probably by reading the views of others; and as a necessary consequence, have given us farmers some pretty hard "hits," about the "poultry roosting on the trees—manure drain emptying into a stream of water—hogs wallowing in a puddle at the kitchen door—his young orchard almost destroyed by the borer," &c.

All the above "rubs," as quoted from your article, are foreign to my present purpose, except the borer. Fortunately, however, I think you were mistaken in your surmises in regard to the borer. As to this formidable insect, however its ravages may have almost annihilated trees in some parts of the country to the eastward, it is, as yet, I believe a stranger with us, certainly not doing damage to any serious extent in Lancaster county.*

As respects *high cultivation*. I believe it to be worse than useless, producing a vigorous growth of wood without a corresponding quality or quantity of fruit. The wood by its luxuriant growth becomes tender, less able to withstand the effects of climate, and in the pear particularly, predisposing the trees to be attacked by blight.

Specific manures.—A writer in the *Horticulturist* for October, comparing the Seckel pear as brought to the Philadelphia market at the present time with those offered there formerly, and those now produced at Boston, says: "That in the vicinity of Philadelphia the soil has run out;" or in other words, "owing to the long cultivation of the variety, the proper food for the pear has become exhausted,—and that the superior quality of the fruit raised at Boston is owing to superior cultivation, and the application of specific manures." Now, I would respectfully ask, can a few hundred trees in the vicinity of Philadelphia, (say ten or fifteen miles around the city,) have exhausted all the elements in the soil through that section of country? There are no doubt hundreds of acres in that region that never produced a Seckel nor any other pear tree, and yet, if the elements have all been exhausted by the few trees growing there, the roots of pear trees must have rambled miles and miles through the soil, to have found and appropri-

ted all the specific food throughout that extent of country; for, you must remember, if a Seckel pear tree is planted on soil where none stood before, the fruit is the same imperfect specimen as on other trees. Now I am confident that the few pear trees growing in Lancaster county can not have exhausted all the specific elements in the soil of this county; yet, here, the Seckel pear is no better than at Philadelphia, although many trees have been planted within my knowledge, on ground where none grew before.

Again—as to the elements necessary for the production of fine fruit, being exhausted in the soil—or the theory of high cultivation, or carelessness of farmers in not doing things in a proper manner.

I will give the history of two orchards, not a mile distant from each other. I might give the history of a dozen, but for my purpose two are sufficient. The one was planted according to the scientific mode, the other in the careless way; both were planted on ground that had never produced a fruit tree since the removal of the primeval forest, and in naturally good soil. The one was planted according to the plan recommended in "Cox on Fruit trees"—holes were dug four feet square, and two feet deep; the subsoil removed and a mixture of surface soil, pond mud, rotten stable manure, with a sprinkling of lime and ashes filled in its place. The trees were placed on this, with surface soil filled in among the roots, and planted as recommended in "the books." These trees grew very vigorously for eight or ten years,—particular attention was paid to remove every useless twig in time to give the tree its proper shape—the ground well cultivated for a series of years and manured with stable manure, pond mud, and a light dressing of lime. This orchard has now stood thirty one years, and has produced two middling full crops of fruit. If the trees were removed, the field would produce 60 bu. of corn to the acre.

The other orchard was planted about twenty or twenty-two years since, on the careless plan. Holes one foot square, eighteen inches deep—the roots of the trees forced down, and tramped hard, (much in the manner of setting fence posts) ten to twelve inches lower than they stood in the nursery—to prevent the wind from blowing them down, as the man told me, when I undertook to give him, as I thought at the time, some valuable hints in respect to planting trees, from my small stock of "book knowledge."—For years this last orchard has been in a far more thrifty state than the other, bearing oftener, larger crops, and finer and fairer fruit.

This is no fancy sketch, but the actual facts and the reader can draw his own conclusions.

From the foregoing remarks you will understand that I do not believe that neglect or carelessness, is the cause of unfruitfulness of our trees, or that high

culture, or specific manures will to any extent remedy the evil.

I am happy to have such high authority to confirm this opinion as the Messrs. Hovey, of Boston—the very site where such fine fruit is said to be cultivated. In regard to what are termed special manures, they say—"like other theories which have had their day, and sunk into oblivion, this to a certain extent, we think is likely to share no better fate," and again, "we are not yet ready to adopt the views of those writers, preferring rather that their readers, who believe them, should experiment upon their theories to their hearts content, as they have with *gastar*, *salt*, *copperas*, and similar nostrums, until they have destroyed all their trees, when they will be more likely to listen to the dictates of reason and common sense."

From this imperfect sketch of a short history of fruit culture in Lancaster co., it might be inferred that I would discourage the cultivation of choice fruit, by apparently magnifying the obstacles to be encountered. Far from it; I would rather urge renewed exertions "perseverance overcometh many obstacles." The seasons may change, bringing renewed productiveness, or the causes may be discovered, and remedies applied. I would prefer being the means, however humble, of disabusing the public mind of the wrong impression, thereby relieving the farmers of the unjust charges preferred against them of *not caring for their trees in a proper manner*, and at the same time to caution the inexperienced against adopting any of the "new notions," until after a fair trial to a limited extent, will warrant a fuller reliance.

Trusting, that the increased facilities for procuring trees of the more esteemed varieties—and the stimulus of a constantly increasing demand, as also the "Hope of a better time coming," will make fruit culture an object worthy of renewed attention of farmers and others.

I remain, respectfully, &c.,

J. B. GARRER.

Floral Retreat, Jan. 25th, 1852.

[We differ in opinion with our correspondent in relation to the extent of the ravages of the borer in Lancaster county. Many young orchards, for want of proper attention in time, have been greatly injured by them. Quite a number of young trees which came under our care this spring were badly damaged by the borer. Some of them were eaten almost completely off.—Ed.]

Improvement of the Dung Hill Fowl.

MR. EDITOR: In looking over several other Agricultural Journals which I receive from month to month, I have been struck with the unanimity with which they all condemn the practice of breeding *in and in*. But the remarks of the writers apply mainly to the breeding of cattle, horses, &c., poultry be-

ing, I presume, too small a subject to claim their attention:

Feeling, however, a deep interest in chickens, you will I hope, allow me a brief space, in your valuable journal for the purpose of directing the attention of farmers to a subject which interests them all, because they are all to a greater or less extent engaged in it.

Every one is aware of the fact that generally speaking, the fowls kept by our farmers are small in size, and usually, but indifferent layers. Neither their inferiority in size, nor their poor egg-laying qualities is, however, to be attributed to the kind of food they receive, (for farmers fowls generally fare well) nor to any want of attention; but to the fact that in very many cases, the stock is never changed, or if changed at all, so seldom as to be productive of no good results. Thousands of miserable, weak-minded people, idiots and lunatics, attest the evil results of marriages between blood relations. If such be the consequences resulting from breeding in and in from the human family, will not the principle apply to fowls. Will not a stock of fowls degenerate from year to year, both in size and in other good qualities, if no additions from other varieties or from other premises are made? Look to the condition of the chickens usually known, as "dung hill fowls," a variety more generally had than any other kinds in the United States, and which although now small, and comparatively worthless, were doubtless at one time in every respect equal to those for which such enormous prices are now asked. Why this degeneracy? It is very easily understood. The idea of improving the breed of fowls rarely visits a farmer's mind, and in the multiplicity of duties resting upon him, he does not think it a matter of sufficient importance to change "*crowers*" with his neighbor, or to kill off his old ones and purchase new. But this is a great error as I shall endeavor to prove, by facts gathered from my own experience, and which I respectfully offer for the benefit of my fellow subscribers to the Farm Journal.

Several years since, convinced that by changing my plan of breeding chickens, I could very materially improve them in some very essential particulars, I purchased twenty of the finest dung hill chickens I could find—eighteen hens and two cocks, paying attention to size and form only, color being disregarded. The oldest chicken in the flock was not more than seven months. I purchased them in the fall of the year, provided comfortable quarters for them during the winter, fed them well, and received in return, a fair supply of eggs.

From this flock I raised during the ensuing summer, about two hundred chickens. The young cocks were either sent to market, or served up for my own table. I did not retain a single one of them. The old ones were also disposed of, and an entire new supply of young cocks of the best form and size I could

find, purchased. The ensuing spring the same system was pursued, and I thought the progeny of the second year somewhat superior in size to their progenitors. Their laying qualities were certainly better. The year following, the cocks of the previous year were discarded, and their places filled with new ones. The two year old hens were also put aside, or retained merely for hatching. The third year, I had the satisfaction of beholding the results I had anticipated.

My chickens were not only greatly improved in appearance; but I received nearly double the quantity of eggs from the same number of fowls. I still pursue this plan, and cannot but commend it to the attention of some of our farmers. My fowls are one half larger than formerly, and cost me no more feed or trouble than the smaller ones, and when sent to market they command a much better price.

I do not believe it necessary to change the cocks every year, although I have done it with advantage. Every second year would perhaps answer as well; but changed they should be by all means, if larger fowls are desired.

ELNATHAN ROGERS, JR.

Montgomery co., Pa.

Plowing in Clover for Wheat.

MR. EDITOR: I wish to let Mr. Gowen, and others who read the Farm Journal, know the effect that plowing in green clover has with me, and give them an opportunity of judging whether it will benefit the land or not.

In the summer of 1849, I had a small field of 4½ acres in Clover, which I pastured a while, and then let the clover grow until it was fit to cut for seed.—With a large plow and three strong horses, I plowed it, then harrowed it effectually, and let it lie until 28th of September, when I seeded it. In the harvest of 1850, I cut 135 dozen of wheat, which yielded 165 bushels or 36½ bushels per acre. It did not require to be seeded with clover the next season. I plowed it down last season again, and the wheat now looks fine, although a part was winter-killed. It is proper to state that the crop of Wheat that was on it before the clover was plowed down, did not exceed ten bushels per acre.

J. W.

Kishacoquillas Valley, Mifflin co., Pa.

A New Evergreen.

MR. EDITOR: Enclosed is a branch of an *Evergreen* that I am unacquainted with, as are also the best *Botanists* in this section of the country, to whom I have showed it. It is a low shrub scarcely rising more than two feet above the surface of the ground, and its leaf you will see is similar to the Hemlock, although it is larger and more beautiful. Its native place of growing is in low moist ground—but I have transplanted it to a dry soil with good success

Its low, wide spreading branches, luxuriant as they are, would make a great addition to pleasure grounds, or Cemeteries. Should any amateurs, whose attention you may call to it—incline to try its merits as an Evergreen Shrub, I will be ready at any time to give all the information in regard to it that I am in possession of.

Respectfully yours,

A. M'LEAN WHITE.

Hartstown, Pa., June 1852.

[The Evergreen and flower came to hand, but so much injured as to prevent us from determining any thing satisfactory about either. We shall be pleased to hear further from our correspondent in relation to them.—ED.]

Toads and Insects.

MR. EDITOR:—Although not the handsomest of living creatures, the toad is certainly one of the gardener's best friends. Quiet and unobtrusive in his manners, perfectly harmless and asking no privilege but that of being permitted to roam *ad libitum* thro' the garden, he is continually rendering excellent service. I have ever been the friend of toads, and greatly regret the cruelty frequently manifested towards them by unthinking persons. My garden abounds with them, and a more sociable set of fellows I have rarely met with. Whenever I commence spading, the newly spaded bed is sure to be surrounded with them, watching quietly but eagerly for any grub or worm that may chance to be thrown up.

Last summer, whilst spading some ground which abounded in the large white grubs usually found in the vicinity of clover stalks, I observed a middlingsized toad sitting near, quietly watching my operations.—Presently one of the grubs was turned up, and in order to test his fondness for such food, I threw it before him. In an instant it was swallowed. As he appeared to relish the morsel, I gave him another and another, until finally he made way with *seven* of them, when he retired. Next day he returned, and despatched six more of the grubs, which I gave him. I mention these little facts merely for the purpose of showing how large number of troublesome worms and insects a single toad will destroy.

As some of your readers may have a cucumber bed, which the striped bug is destroying, permit me to suggest a remedy for these pests, which I have found most effectual. Between the hills, lay pieces of board sufficiently raised from the ground to enable the toads to conceal themselves under them during the day and my word for it the bugs will speedily disappear.—Whether they are eaten by the toads, or whether their presence is so unpleasant as to drive them away, I cannot say, but presume the toads destroy them.

Marietta, June 16, 1851.

J. T. L.

On Thick and Thin Sowing.

MR. EDITOR:—In examining these two important points in agricultural practice, one is very much perplexed between various opinions. It seems to have been an old habit among our farmers, to sow thick, and they were probably governed in this course by the test and testimony of experience. Since the introduction of the drill, one of its recommendations, the most frequently urged, is, that it saves seed. In this way, we are put afloat again, leaving the question, of which is best, thick or thin seeding, undecided, and thrown upon the discretion and experience of each individual farmer.

An English agriculturist, who seems to farm very brilliantly, sows but one bushel of wheat to the acre. It is drilled in, in rows, twelve and a half inches apart. "And nothing," says the authority, "can exceed the regularity and beauty of the plan." But lest some of our farmers should heedlessly adopt this practice, and attempt to imitate or compete with this fortunate Englishman, they must know how it is that he is thus successful, and knowing this, they may undertake the experiment, if they please. He begins, with a large outlay of capital, to get his ground in condition to produce. His manures are the richest barnyard manure—and superphosphate of lime, four hundred weight to the acre. These bring him heavy crops of turnips, sheep are fed with these turnips, in the ground,—and besides, to encourage them to come forward rapidly for profit, they are tempted with an unlimited supply of bruised beans, peas and oil cake. As the turnips are consumed—the ground all the time being manured by the sheep—it is plowed and sowed with barley. This is followed by clover and grass seed, a part of which is fed, and a part mown. Then the ground is again plowed, and rolled, and harrowed, and after all this coaxing, is at last treated to one bushel of wheat to the acre. The result was forty-eight bushels of wheat to the acre—as to the amount in money, there is complete silence.

But if we, on this side, cannot imitate this English farming—is there nothing to learn from all this generous expenditure, skill and labor. There are two elements of success in this system, which not only *can* be adopted, but *must* be adopted, by all who wish to have their farms in fine order, and to make them produce.

The first is a complete disintegration of the soil, which is effected by the repeated plowings and harrowings mentioned, the other, is warming abundantly, with the best manure, and no doubt the plowing was of the very deepest, instead of being scratched over as much of this continent is, by implements that go very little deeper than a hen's claws.

Another English farmer, who seems to pursue a similar system to the one just noticed, and whose farm is represented as being in the highest state, takes an opposite view, as to the sowing of wheat.

He drills two bushels and a half or three bushels to the acre, in rows eight inches apart, and the average crop for six years, has been thirty-four bushels and a half to the acre. A less quantity by thirteen bushels and a half, than that of the man who sowed but one bushel to the acre.

No reason is given for the adopting so unusual a mode as sowing but one bushel to the acre, but as it is successful, the philosophy of the thing may be discussed. It is a practice, that seems of very limited application, "as a thin sowed crop is later in ripening, and more subject to mildew, and unless accompanied by the most careful and continued hoeing, more favorable to weeds, besides being more easily affected by the casualties of the season."

But the farmer who prefers thick sowing, gives his reasons for so doing.

"He does it, because in his opinion, wheat ought not to be encouraged to tiller. If the plants are sufficiently thick in spring, they at once send up the stalk; but if the roots are thin, they send out lateral shoots, which strike in the earth, and produce new plants. The first plant is weakened by having to produce auxiliary plants, and the plants of the second growth do not come to maturity, so early as the original or parent plant. The quality of the crop is thus injured, as there are always more light and defective grains in a thin sown, than in a thick sown crop; besides that, there is less seed to meet the contingencies of insect and weather." These have every appearance of being good and substantial reasons, though it is not probable that they have occurred to the many who adopt the practice of thick sowing, more from habit, or tradition, than reflection.

If these reasons are examined, we are not sure they will prove satisfactory. As to preventing tillering, is it of importance, or is it possible? The excessive growth of shoots or suckers, from any one seed, or plant, is certainly not desirable, but it is only likely to take place where the ground is more than usually rich, and where the seed is more than usually thinly sown, circumstances, by no means common in American farming; and therefore hardly to be provided against. But all plants will tiller, and the success of a crop of wheat depends on the number of these suckers that will bear grain. The number of plants in any given amount of land—say a square foot—is but small, and if these do not send up shoots or off-sets, the crop will be a very small one; but it is also true, that where too many are thrown forth, the stem alone will mature.

It is not, however, to be expected that every seed will produce a plant, or that in broadcast seeding, every seed will be so cast as to take root. To prevent these accidents from affecting the farmer's hopes and destroying the whole result of his labor, an abundant or even a superabundant quantity of seed is the wiser and safer course.

The drill has done much towards ensuring the safety of our crop of wheat, by placing the seed at regular distances below the surface, and giving every grain a chance. It also makes necessary a more thorough tilling of the land. It is in itself a kind of extra harrow, though we have seen as good crops from plowing in, as from drilling; but we are inclined to think, on the whole, that drilling is the best mode of tillage yet devised—the single fact of it making a more careful cultivation necessary, is strongly in its favor.

The saving of seed is hardly worthy of consideration, when other objects of more importance are gained. Too thick sowing, too high manuring and too shallow plowing, often causes the plant to fall or be laid, as it is generally called, by which the crop is injured or lost. This evil result of too much seed is easily avoided.

On the whole, it may be gathered from these remarks that thick sowing is better than the opposite.

A. L. ELWYN.

A New Remedy for the Curculio.

MR. EDITOR:—In the yard attached to my residence there are several very fine fruit trees, among which are two superb Orleans plum trees. For several years after the plum trees came to bearing, we had fine crops; but two years since, although they blossomed well, and fruited too, the young fruit fell to the ground before it had attained one tenth its full size. Upon examination, I found that each one of the fallen plums bore a crescent shaped mark, which I could attribute only to the puncture of an insect. Not being familiar with the manners and habits of the curculio, I did not blame him with the mischief, but concluded to watch closely the ensuing spring for the depredator. Ignorant of the character of the enemy of my fruit, I determined to try an experiment with one of my trees. I accordingly procured a pound of flour of sulphur, and placing a small iron furnace filled with live coals on a high stool, as near to the lower branches as I could with safety, sprinkled the sulphur lightly on the coals. This was early in the morning while the atmosphere was perfectly calm. As the fumes of the sulphur ascended through the tree, I watched closely for the purpose of ascertaining whether any effect had been produced upon my unknown foe. Scarcely had the vapor risen to the topmost branches, when I observed several round looking objects falling. Upon examination I found them to be insects which were entire strangers to me. Gathering up two or three of the nearly defunct little creatures, I showed them to a friend somewhat skilled in entomology, who at once pronounced them the dreaded curculio—the scamps that had the preceding year destroyed my plums. Much delighted with the discovery, I immediately renewed the sulphur fumigation, continuing it for more than a week,

and always with success against the foe. The result was most gratifying. The tree which had been fumigated, bore me a fair crop of excellent fruit, while on the other scarcely a single plum came to perfection.

This spring the two blossomed profusely. I again caused the sulphur to be applied, and at the period of writing, I am rejoicing in the prospect of a fine crop of plums. If you think this little experiment is worth presenting to your readers, it is at your service; and is offered not with any desire to see my name in print, but with the hope that it may prove effectual in ridding our fruit trees of this troublesome and destructive insect.

R. FISHER.

Philadelphia, June 14, 1852.

My Two Neighbors.

MR. EDITOR: Twenty years of my life having been devoted to tilling the soil, (although not now engaged in farming) and being moreover of a naturally observant disposition, I sometimes flatter myself that a sight of any farmers' premises is to me sure index of his character. The spirit of the master, is always seen in the appearance of things on the farm over which he presides, and the economical money-making farmer is as readily known by the order in which every department of his premises is kept, as by his ordinary pecuniary transactions. By the term "economical, money-making farmer," I do not mean the narrow-minded penurious man, who has not a single idea beyond the mere desire of accumulating wealth for wealth's sake; but the man who, when a proposition or suggestion is made him, weighs it well in all its different aspects, and what well matured judgment commends, that he adopts, and having adopted, enters upon its realization, with his whole soul.

Although every man of ordinary good sense may without difficulty, discriminate between the two, yet the majority will give the penurious farmer the credit of making the most money, while in fact, his liberal, economical neighbor's income from a farm of the same size and quality of soil is nearly double.

I have two neighbors, who in point of character and disposition are perfect antipodes. Both are farmers, and both are desirous of securing a competency, and it is profitable as well as pleasant to observe, the different methods they adopt to secure their object.

Mr. A. is a shrewd observer—a man of more than ordinary intelligence, and always labors with an eye to profit. A few features about his premises will best portray his character. His dwelling is a modest looking, but well constructed and convenient building. A neat yard in front is filled with trees, at once ornamental and useful. Every tree and shrub, and plant, is made to serve the double purpose of rendering his home pleasant and profitable. The

currant, gooseberry, raspberry and other fruit bearing plants, that thrive so luxuriantly around the fences, (attesting the attention and skill of the owner,) are all of the best varieties, and when sent to market command the best prices. The same is true of the plums, apricots and peaches that surround his dwelling.

His barn is commodious and convenient. Every part of it is arranged with an eye to the comfort and security of his stock, and economy in their food. He has long since learned to know what grains possess the best fertilizing qualities—what gives strength to the muscles of his horses and oxen, and what assists most largely in the secretion of milk and promotes its richness. His barn yard is so constructed, that not a drop of liquid manure is wasted. Every kind of material possessing fertilizing qualities is carefully added to the manure heap. His fowls are not permitted to make a roosting place of the feed troughs, rack &c., but a comfortable house accommodates them, and the manure saved, more than repays him for the expense of building. His fence rows are all neat and clean, and his fences in good repair. His implements are all of the most approved kinds, and as a consequence, his lands are well tilled. His fine Devon Cattle, are the admiration of the neighborhood and his horses and other stock of a character admirably adapted to the purposes for which they are intended. As remarked by one of your correspondents in your last number, he has "a place for every thing and every thing in its place." He is industrious and frugal, and what must necessarily follow such a methodical system as his, he is growing rich.

Neighbor B. is as industrious as neighbor A. In fact, he works much harder, but with less profit. Let us glance a moment at his farm. His dwelling is a plain structure, but wholly devoid of taste. His paling fence is fast going to ruin. The pigs and chickens are aware of the fact, and have free ingress to the front yard where a few stunted trees, and shrubs continue to prolong their feeble existence.—Not a flower adorns the place. The house the appearance of which a coat of whitewash would greatly improve, presents a dirty forbidding aspect. If you visit his barn, you will find here and there parts of the weather-boarding torn off. Others, which the driving of a nail would save, are ready to follow. Here, as in the front yard, the chickens have full sway. His horses are not remarkable for strength or beauty, nor could it be expected they should be. He never feeds too strong, for fear of injuring them.—His old style of "horse killing," plows, and other implements, aid him very materially in his efforts to prevent his horses from growing too fat. He rises at day-break, and is in the field before the sun, nor does he leave it until it has sunk below the western horizon. His stables are badly ventilated and his

manure is wasting day by day. His cows, for want of proper attention and food, yield but a scanty quantity of milk. His fence rows abound in noxious weeds, and every year the nuisance is becoming greater. All this improvidence, the reader will perhaps be ready to attribute to carelessness. Not so. If you were to endeavor to persuade him that it would be true economy to repair the paling fence, nail up the weather boarding, or clean his fence rows, he would tell you that he knows it should be done, but he has *not time* to attend to it. He conceives that true economy in farming consists, not in giving attention to such small matters, but in devoting all his time to the large operations of the farm, forgetful of the fact that while with his unwieldy implements and incessant demands upon the services of his horses, he is fast wearing away their strength and usefulness, his neighbor A. performs an equal amount of work, although he does not go to the field until an hour after Mr. B. A. prefers that his horses should have time to eat, well knowing their superior strength and vigor in consequence, will enable him to do more work before the day is over than his penurious neighbor B; besides which, his implements are all of the latest improved kinds, and save not only his horses, but much valuable time. B. is fully aware of the superiority of A's implements, but his penuriousness induces him to cling to the old ones so long as they can be made to answer his purposes, however badly. In many other points, there are discrepancies in the character of these two men. I might advert to their crops, their mode of plowing, seeding, harvesting, &c., but enough has been said to answer the object I had in view in troubling you with this communication, viz: an earnest desire to impress upon the minds of the younger readers of the Farm Journal, the importance, not merely of economy and industry, but of *methodical* economy.—My earnest desire is, that the minds of our young men may be thoroughly impressed with the necessity of familiarizing themselves, not merely with the physical details of farming, but that they will also apply themselves to those branches of study which stand in intimate alliance with their daily pursuits. My neighbor A, by habits of close study and observation, has fitted himself to pass tolerably correct judgment upon the merits of a new theory or a new implement; while neighbor B. in a spirit of false economy discards every thing new, and clings to the old system with a pertinacity in this age of progress, rather astonishing. The one is reaping the reward of his observation and *true* economical spirit, in increased wealth; while the other is realizing a bare subsistence, at the expense of his own and the strength of his horses—the value of his farm stock, and the fertility of his soils.

E. A. P.

Lancaster co., June 16, 1852.

The Quantity of Nitrogen in Wheat, Corn, Clover, &c.

MR. EDITOR:—In an article, headed Agricultural Chemistry, in the May No. of the Journal, there are, I think, some errors; to which I wish to direct your attention.

It is very important to Farmers, that scientific statements be clear and intelligible, otherwise they can form but a poor guide for their practical operations.

The writer alluded to, in speaking of wheat, says: "of the elementary ingredients, nearly one-fourth are nitrogenous, appearing principally as gluten in flour."

This is allowing entirely too much per centage of nitrogenous substances. Prof. Johnston gives the nitrogenous substances in wheat from 10 to 15 per cent. Boussingault and Liebig at 14.3 per cent.

I know that a larger proportion of nitrogenous substances has been found in wheat when manured with highly nitrogenous substances, as urine, blood, &c.; when wheat is raised in gardens, or when southern varieties were analyzed, as the hard wheat of Africa. Boussingault grew the same variety of wheat in the open field and in a very rich garden: in the produce of the garden there were 21.94 per cent of gluten and albumen: in that of the open field no more than 14.3 per cent of the same principles.

In the article referred to the writer says: "Indian corn requires very little nitrogen." This, I think, is an error. Indian corn contains (nearly) as great a per centage of nitrogen as wheat; and an acre of corn contains far more than an acre of wheat; and the amount of nitrogen consumed by a crop per acre, is the proper light for a farmer to view it, in applying manure, at least. If an acre of corn really contains far more nitrogen than an acre of wheat and the farmer should give to the land but little nitrogen in the shape of manure, his crop must fail unless a sufficient amount be furnished to it from the soil and atmosphere.

Johnston gives the nitrogenous principles in Indian corn, 12 per cent. Boussingault and M. Payen 12½ per cent. But the most complete analysis of Indian corn was made by our own countryman, J. H. Salisbury, and published in a prize essay on that subject.

All parts of the plant and numerous varieties were submitted to a careful analysis. Three varieties of the Twelve Rowed Flint contained an average of 13.46 per cent of nitrogenous substances; the highest of which, the Sioux, 14.9 per cent.

In the varieties of eight Rowed yellow the average amount was 15.1 per cent. Five varieties of White Flint 11.27 per cent. Four gourd Seed varieties 9.38. The R. I. sweet corn 19.32 per cent. Three varieties of pop corn 13 per cent of nitrogenous substances.

The gourd seed it will be seen contains less nitrogen than the flint; and of the four gourd seed vari-

eties here given, the Virginia yellow dent has the most (11.6 per cent;) the Pennsylvania yellow dent comes next (9.36 per cent;) and the large white Kentucky dent the least (8.6 per cent.)

Fifteen varieties of corn contained an average of 13.89 per cent of nitrogenous substances.

Again in the article above referred to, it is said: "The predominating ingredients in red clover are lime and potash, with a not inconsiderable proportion of sulphur, but less phosphoric acid and nitrogenous substances." If this had read, the predominating ingredients, of the *ash* of clover, are lime and potash, it would be much clearer; for the nitrogenous substances in clover are more than the whole of the *ash*, including lime, potash &c.

But apart from the inaccuracy of the expression, I cannot agree with him, that clover contains but little nitrogen. It is probably richer in nitrogenous substances than any of the grasses; and an acre of clover hay contains far more nitrogen than an acre of wheat. It may be useful to compare the amount of nitrogenous substances, (which are gluten, albumen &c., only about 16 per cent of which is nitrogen) in an acre of the above named crops.

Gross produce and nitrogenous substances on an acre:

Gross produce.	Nitrogenous substances.
Wheat 25 B. or 1500 lbs.	185 lbs.
Wheat straw 3000 do	40 do
Total amt. of nitrogenous substances in one acre	225 lbs.
1. Corn 45 B. 2700 lbs.	324 lbs.
C. Fodder & cob, 4500 do	157 do
Total amount per acre.	481 lbs.

Clover Hay 2 tons 4500 lbs. 420 lbs Nitrogenous substances.

Thus we see that an acre of clover has really, nearly twice the amount of nitrogenous substances, contained in an acre of wheat, and an acre of corn more than twice as much.

In a series of experiments in the rotation of crops, Boussingault gives the following:

1st year produced potatoes which contained:				
		42 lbs.	nitrogen	per acre
2d	"	Wheat, 32	"	"
3d	"	C. Hay, 78	"	"
4th	"	Wheat, 40	"	"
5th	"	Oats 26	"	"

It thus appears that the nitrogen in the clover hay on an acre was more than double as much as that in the wheat crop which preceded it: and the nitrogen in the wheat crop which succeeded the clover was 25 per cent more than the one which preceded it. This does not corroborate the assertion that "clover speedily exhausts the soil." The analysis of clover roots and stubble proves that they contain more nitrogen than the whole of the wheat crop, straw and all.

When we consider that the nutritious properties of plants both as food and manure, are in proportion

to the quantity of nitrogen they contain, we can form some idea of the value of clover.

Boussingault proved that clover, by being sown in pulverized, burnt clay, and well watered, flourished and increased rapidly in nitrogen; but wheat increased little in nitrogen.

Now, if clover obtain a large proportion of its nitrogen from the ammonia in the rain: I ask, can it be so exhausting to the soil? It is true, clover contains about 7 per cent of ash, but as the article alluded to, states, it is principally lime and potash, which can generally be supplied at a small cost in the form of ashes, and carbonate and sulphate of lime.

An acre of clover contains about 70 lbs. of lime, and 80 lbs. of potash and soda—a few bushels of lime and ashes would return twice this amount to the land.

Boussingault says: "If the second crop of trefoil (which is the white clover, red clover is still better,) be plowed down, new fertility is imparted to the land in spite of the considerable amount of forage removed in the first crop. * * * Clover leaves more residue (in form of roots and stubble) than the potatoe, and on this ground alone ought to favor the cereal that follows it; but it has a *favorable influence out of all proportion* with its quantity, contrasting this with the residue of either of the hard crops."

If clover was so exhausting to the soil, its roots and stubble could only lessen the amount of exhaustion, but instead of this, careful experiments prove that the crops which follow it, with nothing but the roots and stubble for a manure, are far better than those that precede; and we have presented the opinion of an eminent writer on agricultural chemistry, that the soil will bear removing the first crop of clover and retain its fertility with only the second crop plowed down.

Wheat, Indian corn, and clover, are of so much importance, not only to the agriculturist, but to all classes of society, that I have thought proper to occupy so much space in the columns of your Journal: there are numerous other facts corroborating the views here presented, but lest this is already too long to be carefully read, I shall conclude.

L. H. GAUSE.

Mt. Airy Ag. Inst., Germantown, June 4.

Spent Tan Bark.

MR. EDITOR: In a former number of the Journal, I observed an article from one of your correspondents in Cumberland county, detailing his method of rendering spent tan-bark available for fertilizing purposes. I was much pleased to find that some one had at length taken hold of the subject, as I deem it worthy consideration.

For a number of years past I have been in the habit of using spent tan-bark in my garden, and with the very best results. The soil on which it was

tried was a stiff clay—altogether too stiff for successful gardening. The tan was procured from a neighboring tannery, where it had lain probably two years, and was applied the thickness of four inches over the beds. It was then spaded in to the depth of a foot. I soon observed the difference, not only in the soil but in the growth of vegetables. A new life seemed to have been imparted to the soil. From being stiff and cold it became friable and warm, and the vegetables grown where the tan was applied, were not only more vigorous in growth, but several days earlier. I have strong faith in the virtues of spent tan, and hope that the ignorant prejudice hitherto entertained in relation to it will speedily be removed.

York county, Pa., 1852. E. WIRT.

[We are glad that spent tan-bark is beginning to be properly appreciated. In a former number we recorded a small but successful experiment made with it in the cultivation of celery. Since then, we have had another opportunity of testing its value. When absent in March, we wrote home, giving directions to have a particular bed well manured and spaded for beans. Instead of the bed we ordered to be spaded, the gardener selected another, and mistaking our directions about the manure to be applied, gave it a heavy coating of pretty well decomposed tan bark. Not having any very great faith in its virtues as a manure, we were not a little mortified on our return to find our directions so lamely carried out. The beans, however, were planted, germinated rapidly, and at the time of the writing, June 14th, are not only in full blossom, but decidedly the most thrifty and vigorous we have seen this season. No other manure was applied, nor had any been applied to this bed for several years previously.

The soil is a stiff clay, but by the application of the tan has become quite mellow, and appears to retain its warmth and moisture much better than any other bed in the garden.—Ed.]

"Going to the Bottom of Things."

Some idea of the great fertility of the soil in portions of Iowa, may be formed from the following extract from a letter received from J. K. Pratt, a Pennsylvania farmer, who has located himself in the vicinity of Cedar Falls. He says, "I have not time now, to give you any of the details of my farming operations here, but will merely remark, in reply to the advice of one of your old farmer correspondents, 'to go to the bottom of the soil,' that his recommendation would not apply well in this section of country. Our parsnips, beets and carrots, work on that plan, and frequently go down three or four feet to get to the 'bottom,' but always fail in the attempt, as the depth of soil is too great for them to penetrate. It is hard work to get them out, and I fear, if the same principle of going to the bottom with the plow, were adopted, we should have still harder work with it."

War against the Curculio.

In our last, we called attention to the wide, and still wider, spreading ravages of the curculio. Since then we visited Philadelphia, where we found the stone fruit nearly all destroyed, and the fruit growers in despair. Not a single person with whom we met appeared to indulge the slightest hope of ever being able to eradicate the pest. All appeared to have settled down to the firm but painful conclusion that the curculio would eventually destroy all our stone fruits. Highly as we respect the opinion of our Philadelphia friends on this subject, we beg leave to differ with them. *Nil desperandum* is our motto.—We are not yet prepared believe that human skill and ingenuity will much longer be baffled by the curculio. If the danger be as imminent as they represent it, and we have no doubt it is, let the battle cry be sounded, and "Death to the curculio" be inscribed on our banner. If we are in danger of losing our most delicious fruits—our apricots, plums, nectarines, peaches, cherries, &c., let us at least have the pleasure of striking a blow in their defence: before yielding them to this merciless foe. But how shall we proceed? Who shall be our leader? Proceed as you would do, if night after night, your fruit trees were robbed by some mean fellows. Watch for them, until you catch them, and when caught, wait not to ascertain of how much fruit they have robbed you, but into the fire with them at once. You need no leader. A system of tactics effectual in curculio warfare has never yet been laid down. Let every man who has a fruit tree feel that he is its protector, and as such, is duly authorized to inflict punishment upon every thing that would injure his charge. Try every thing. Spread sheets beneath the trees, and every morning early, shake down the fruit. Gather all the fallen fruit and destroy it by boiling or some other effectual process. Keep fowls in the vicinity of your trees, and if possible, let your porkers have a chance at the foe. Try any thing and every thing. When one effort fails, do not despair; but make another, and another, and still another, until at length, something will be hit upon, some plan devised, by which the enemy will be routed, and peace and plenty restored to our fruit trees.

MR. EDITOR.—Will you or some of your correspondents please inform me what method I shall adopt to prevent my gooseberries from mildewing? The bushes appear thrifty and fruit well every year, but the berries are invariably destroyed by the mildew. An answer would greatly oblige,
E. T.

New Holland Pa.

[Clean the grass thoroughly beneath the bushes, and mulch with any kind of material that will not prove injurious to the plant. Salt hay, common straw, long manure, spent tan-bark or leaves will answer. We have found that a top dressing of common clay will effectually prevent it.—Ed.]

Shading Plants.

In my younger days, when setting out celery plants, we docked off a number of leaves to prevent their flagging; we shaved off the points of our pink pippins for a similar purpose, and reduced the leaves of all cuttings on a similar principle. A grand hubbub was created among some of our young minds when a great gardener, now no more, demonstrated in the Gardener's Magazine, that *leaves* were the prime movers in the formation of *roots*; that the stripping these leaves from a cutting was worse than labor thrown away; and mutilating a celery plant akin to barbarism. The youngest reader of this work will only require a slight exertion to see thro' the enigma which distracted us amazingly. He will perceive that as there are two ways of telling a story, so the same place may be arrived at by many different routes; the old gardener with his semi-savage lopping propensities was not such a numskull after all. He often did the best, with his limited means and conveniences. He well knew that fine healthy leaves could only be sustained by roots in full action and with an abundance of moisture within reach. He knew that, generally speaking, neither cuttings nor celery plants, unless peculiarly well treated, could at once possess the roots in action necessary to sustain transpiration and elaboration through so many fine leaflets, when these were exposed to solar agency. One sweep of his trusty knife lessened the number of these *robbers* of the stored up energies in his plant or cutting, and saved him many a jog-trot afterward, for seeing if all his shading-from-sunshine paraphernalia were put on and taken off at the right and proper period. His lessening the number of his leaves, lessened the chance of obtaining quickly a sturdy, healthy plant, if the necessary attention to securing a moist atmosphere, and shading from sunshine could have been attended to; but then he marvellously lessened his cares and troubles respecting them, so that though he lost in time he gained in *labor*. He knew that these leaves evaporated; if he did know how, he had not the means to prevent them, nay of making them *absorb* as well as perspire.

The best gardener is he who suits his self to his circumstances, and makes the utmost possible of them. Studying trifles, he may do things very differently from his next door neighbor, and yet, at the end of a few months, a spectator who had never witnessed these operations would imagine they had been working all along in a similar manner. Thus tested, many new discoveries, and seeming differences, would resolve themselves, into looking at an object from different points of view. The pages of this work furnish strong confirmations, though we can not now allude to them. Go beyond them, and what is more commonly found than this: "Shade everthing in bright sunshine in summer," says one. "Nonsense" says another; shade not at all; how can you expect your plants to be worth anything, if they receive not the full blaze of our sun, which even then is not so powerful as that to which our exotics are generally exposed in their own climes." "Shade according to the circumstances of your plants, and your requirements from them," says a third; and with him we coincide: and, if you cannot shade, use other means, such as sprinkling or syringing, to prevent evaporation, and maintain a certain degree of coolness. "Shade ever" in bright sunshine in summer, is just as preposterous to us as "never shade at all." Thus, here are a number of cuttings with all their leaves on, protected from the atmosphere by bell-glasses, and enclosed besides in a pit or frame: allow them, even in these circumstances, the full force

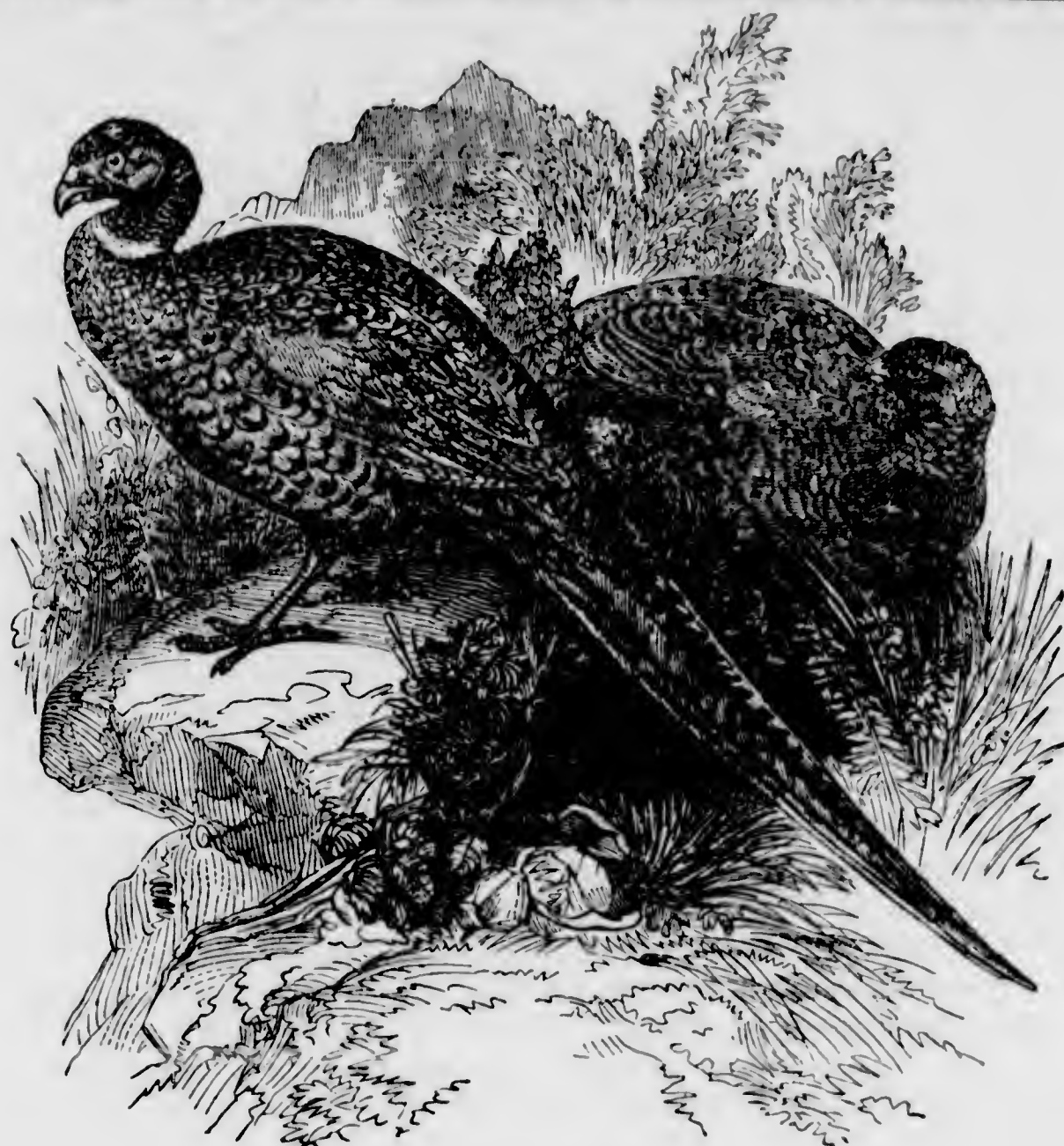
now of a midsummer sun; and, unless in exceptional cases, arising from the nature of the cutting, the leaves will droop, because they can not derive moisture enough from the cutting to supply that outgoing from their evaporating surface:—continue a similar process from day to day, and death will ensue from complete exhaustion.—*Cottage Gardener*.

The Ring-Necked Pheasant.

The Phasianus Torquatus, or ring-necked Pheasant, of which the artist has given such a life-like portrait from nature, is but a variety of the common Pheasant. It is, perhaps, a trifle larger than the Brown Pheasant, with which it is associated in almost every preserve in England. The Cock should weigh about three pounds.

The following paragraph, which we quote from Mr. Nolan, of Dublin, will be interesting to those who desire to try their skill in breeding and rearing this beautiful bird. He says:—

"The Pheasant is not only beautiful to the eye, but most delicate when served to the table. Its flesh is considered the greatest dainty. When the old physicians spoke of the wholesomeness of any viands, they made their comparison with the flesh of the Pheasant. No matter with what care they have been bred or propagated, they disdain the protection of man, and shelter in the thickest covers and remotest forests. All others of the Domestic Fowl submit to the protection of man; but the Pheasant never has, preferring the scanty produce of acorns and berries to the abundant supply of a farm-yard. The Hen Pheasant, in a wild state, hatches and brings up her brood with patience, vigilance, and courage; but when kept tame, she never sits well. A substitute must be found in the clean-legged Bantam, the larger Fowl being too heavy for the Chicks. Her time of laying is about the middle of April, and, if in an aviary, the Eggs should be immediately removed, and placed in dry bran or chaff, until you wish to set them. They are about twenty-four days coming out. After the young ones appear, they are not to be fed for twenty-four hours, after which give them hard-boiled Egg, chopped fine, and mixed with oat-meal, ant-mould, cheese, curd, lettuce cut fine, white flour wetted with sweet milk, bread crumbs, bread and milk, with very limited drink. Be particular to preserve them from cold and moisture. You will have to confine the Hen, so as to prevent her eating their food; and you will have to provide them with maggots. In the neighborhood of Paris, where they rear quantities of young Fowl, for the market, they prepare what they call a *vermineer*, by digging a hole in a dry, sandy spot, in which they place a piece of flesh, which soon gets into maggots, with which they feed the young birds. My own *vermineer* is of much simpler and economic construction. I have an earthen pan, about two feet deep, and one foot diameter, into which I put some bran; on this I place a piece of liver or carrion. I cover it with a common glass cap, and place it in the sun. The flesh soon gets fly-blown, and speedily creates quantities of maggots, and, with a long-handled spoon, I have them thrown to the young birds. They should not get more than one feed of those in the dry. The more varied their food, and the more frequently renewed, the better. Fresh, and a little at a time. The green leaves of barley are excellent. At three months old, feed them on barley, with a little wheat, boiled carrots, or potatoes, mixed with bread crumbs. Give a small portion of boiled rice during the moult. If they should get the roup, give them fresh curd every day. To make alum curd, take new milk, as much as your



THE RING-NECKED PHEASANT.

young birds require, and boil it with a lump of alum, so as not to make the curd hard and tough, but custard-like. A little of this curd and ant's eggs, should be given to them twice a day, in addition to their other food. Keep their vessels clean; and, if the disease still continue, give them every second day, a small dose of garlic in a little fresh butter. They are subject to be vent-bound, which, if not attended to, will kill them. The remedy is, with a sharp scissors cut close the down or feathers about the vent, and anoint it with sweet-oil, and be attentive that it be kept clean, otherwise you cannot rear them; but, in handling them, be particularly cautious that you do it with the greatest delicacy, as the least rough handling will kill them. If they have a scouring, the alum curd will check it.

There is no difficulty in breeding the common Pheasant in a wild state; but to keep them in an aviary, you will have to get a wire-trellis in front, sufficiently close to prevent the sparrows and other birds robbing them of their food. The saving of the food will very soon compensate you for the wire-work, and insure your Pheasants being fed. At the top, I would prefer close net-work of moderate-sized cord, well painted. The reason is, if the birds get fluttered, they fly straight up, and, by a dash against a hard substance, they frequently fall dead, but by coming in contact with the net, they receive no injury. Part of the aviary should be shedded, to protect them from the inclemency of the weather; and I would recommend a retiring-place for the Hens to lay in, and perches of about one inch in diameter. I would advise the retiring-place to be laid down with clean straw, but would prefer fine sand for their walking-place. Wheat and barley are their best food, with occasionally vegetable matter, lettuce, turnip-tops, cabbages, &c. One Cock is sufficient for three or four Hens.

The Culture of Cauliflowers.

From the 15th to the 25th of September, sow the seed in an open border. Let the plants remain until the 20th of October, when they will be small, having four leaves. Plant them out four inches apart in a pit or frame, where you can protect them from the winter's frost; let them remain there until the first week in January, then prepare your pit to grow them in.

The pit should be eight feet wide, three feet deep in front, and four at the back. Get one load of leaves and one load of hot stable manure—I mean in this proportion; have the leaves and manure well mixed a week or two before you intend to use it, and then fill the pit to what will settle down to twelve or fourteen inches, take then and get your soil, old sod three parts, and one part manure—hog manure is the best: cover your bed over to the depth of at least eighteen inches, dig it nicely, then put on the sashes and keep them close for three days, when the little heat that the manure and leaves have created will be sufficient to give the plants a start. This is all that is necessary, for if there be too much heat, it will spoil all.—Then mark out your bed, two rows to each sash, which should be three feet ten inches, and two inches for the wood of the rafters.

It will be understood that the plants were pricked-out in rows, so that they could be taken up with the trowel without breaking any of the ball; set them five plants in the row, and two rows to each sash: you plant lettuce between each plant in the row, and a drill of short-top turnip radishes between them.—After you have all planted, let the sashes remain close for a day or two, when they will begin to show they have taken to the ground. You must then give all the air you possibly can, even take the sashes entirely off in good weather. They must be covered every night with straw mats and shutters until the first of March, or longer, according to the season.

By the 10th of March they will require to be watered twice a week; leave off the sash every day you can: by the first of April give plenty of water, and by this means you can grow early cauliflowers as good as in any part of the world. I have grown them four, five, and nearly six pounds. For the truth of this statement, as to weight, etc., I refer you to the Transactions of the Pennsylvania Horticultural Society, from 1833 until 1837, both years included. I took the premium so long as I cultivated the cauliflower.

AN OLD PHILADELPHIA GARDENER.

The Siamese Hog.

The Chinese Hog is to be met with in the south-eastern countries of Asia, as Siam, Cochin China, the Burman empire, Cambodia, Malacca, Sumatra, and in Batavia, and other eastern islands. There are varieties of the hog in India and China, and hence the occasional confusion of nomenclature met with in books of natural history.

There are two well-marked varieties of the Chinese hog—that from Siam, and that from China proper.—The chief, if not only, point of difference subsisting between them is, however, in color—the Siamese variety being usually black and the Chinese white. Neither of these hogs, however, present constant uniformity in this respect, their color frequently varying, and black hogs coming from China, while white ones are brought from Siam. Even in the same litter, pigs of different colors have frequently been seen, and instances of the occurrence of *pied* individuals. In the case of all animals submitted to the influence of domestication, color alone is by no means a safe criterion in the enumeration of varieties.

The Chinese hog is of small size. His body is very nearly a perfect cylinder in form; the back slopes from the shoulder, and is hollow, while the belly is pendulous, and in a fat specimen almost touches the ground. The ear is small and short, inclines to be semi-erect, and usually lies rather backward. The bone is small, the legs fine and short. The bristles are so soft as rather to resemble hair. The skin itself is, in the Siamese variety, of a rich copper color, and the hair black, which gives to the general color

of the animal somewhat the effect of bronzing. In the Chinese variety, the color is usually white, sometimes black, and occasionally pied. The white sort are deemed preferable, from the superior delicacy of their flesh. The face and head of the Chinese pigs are unlike those of any other description of swine, somewhat resembling a calf.

Both the Siamese and Chinese hogs are very good feeders, arrive early at maturity (a most important particular in any description of live stock,) and feed fat, on less food, and become fatter and heavier within a given time, than any of our European varieties. The Chinese value the hog very highly; they live more upon pork than on any other description of animal food; and it is said that they even use the milk of the sow.

The Chinese take great care of their swine, and pay particular attention to the quality and quantity of their food, feeding them at regular and stated intervals. They do not permit them to walk, but when necessary, have them carried from one place to another. They keep the beds and styes of their hogs scrupulously dry and clean: it is to this attention that we are possibly to attribute the excellent qualities of Chinese pork.

The Chinese hogs that we generally see in this country come principally from the vicinity of Canton, brought thence as sea stock. It is scarcely to be regretted that this breed is not sufficiently hardy to thrive in our climate. From this circumstance, we are compelled to limit the advantages we might otherwise derive from its introduction to crossing with our own coarser domestic breeds of swine. For this purpose it is truly valuable; and the improved race, thus produced, is infinitely superior even to its Chinese progenitor, the latter, in a pure state, being too small, and hence answering rather for pork than bacon, besides fattening even *too easily*. Both these objections are obviated in the cross, which has further the effect of restoring diminished fecundity.—*Richardson on the Hog.*

A hog washed weekly with soap and a brush will be found to thrive, and put up flesh in a ratio of at least 5 to 3, in comparison to a pig not so treated.



THE SIAMSE SOW.

Communications.

Marl in Lancaster County.

MR. EDITOR:—I should like to see more attention paid to the subject of *mineral* and natural manures, by the practical farmers who write for the Journal, than has yet been given. Is it not probable that every large farm has, to a great extent, within its bounds the natural material for its own fertilization, if properly sought for and scientifically applied?—The peat or the black vegetable deposit of the swamps and bottoms, if carried to the exhausted uplands—the sediment of dams and streams, if applied to the surface of meadow, after going through the compost heaps—even the sand and gravel of the barren ridges, if mixed with the heavy and wet surface of stiff fields underlaid by impervious yellow clay—all these changes, and many more that might be named, would have the most beneficial effect.*

* The following article from Moore's *Rural New-Yorker* illustrates this idea:

MIXING SOILS.—Some nine or ten years ago, in the early part of my farming, I had occasion to deepen a well about six or eight feet. The earth thrown out was a tenacious blue clay, just damp enough to cut into lumps, and adhesive enough to remain so. After finishing the well, the man who had charge of the farm was at a loss to know where to deposit it. Having a rare sandy knoll in one of the fields, which was not inaptly termed "personal property," from its being wafted about by every breeze, here to-day, and there to-morrow, it occurred to me that the clay would hold the sand and form a soil. I accordingly ordered it to be deposited there in heaps, the same as if manure. This was in the summer. In the fall the lumps were scattered over the surface and left to the action of the rain and frost. In the spring it was found to have broken down, crumbled and slacked like lime. These heaps were reduced and the clay evenly spread over the surface. The field received a coat of manure, was plowed, and sown with oats and peas. That where the clay was applied, produced the largest and most vigorous growth, of any other part of the field. In the fall it was sown with rye, and seeded with timothy and clover. The rye as well as the clover was much more vigorous and heavier on that, than on any other part of the field. In fact, the person who occupied the farm after I left it, informed me, that he lost his crop of grass on that part in consequence of its lodging. Thus the personal was made real or fast property, and remains so to the present day.

Having experienced such beneficial effects from mixing clay with sand, I was afterwards induced to try what effect sand would have on a rather retentive soil. The garden at Three Hills Farm is a stiff clay loam resting on a tenacious clay sub-soil, rather inclining to moisture. The second year after I purchased and took possession of it, I caused a coat of sand, from six to eight inches in depth, to be put on one of the squares, which was spaded in with the manure, and I had the satisfaction to witness the most gratifying and happy results—the crop on that square was far superior to any other in the garden. Since then I have caused over five hundred one-horse cart loads of sand to be put in the garden, and the effect is still visible, although the sand has disappeared.—*Poole.*

It is not, however, my object to follow out this subject in detail; but, in connexion with Lime, Gypsum and marl, which are the chief mineral manures used, to state a fact relative to the latter, which may put others, having more knowledge and time for such pursuits, upon further investigation.

About a month ago, some workmen employed by one of the Supervisors of East Lampeter Township, in this County, while digging for the foundation of a small bridge on the new road recently opened from Cyrus Miltner's Tavern, near the east end of Witmer's Bridge, to Samuel Ranek's mill, came upon a bed of what I supposed, being then on the spot, to be marl. The only test at hand was some common and not very strong vinegar. When a portion was thrown into this acid, a strong, audible, and long continued effervescence at once took place; and afterwards the application of diluted sulphuric acid, of the drug stores (one part oil of vitriol to seven parts water) produced the same result in a much more marked degree. There is no doubt of this substance being marl—probably what is called *shell marl*.

When first thrown up, part of it adheres together in lumps, like stiff clay, and part falls into small pieces like gravel. In color it is a whitish grey; and when for days exposed to the sun and air, becomes as hard as stiff yellow clay under similar circumstances. Its composition seems to be about one-third nodules of stone, varying in size from that of a pea to a hulled walnut, and the residue a greyish clay or marl, easily pulverized in the fingers, freely effervescing in acid, and containing little grit. In fact this portion, or two-thirds of the mass, is marl and is evidently composed of the remains of shells. On being broken, the nodules present a clean shining fracture, of a brown or yellow color, with generally a dark spot in the centre, around which the pebble seems to have been formed by successive laminae.

This deposit—which was struck at about three feet from the surface, and penetrable about two feet without reaching the bottom—is situated about one hundred and fifty yards east of the Conestogo, and the same distance north of Miller's tavern, on both sides of a small rivulet which falls into the Conestogo a few yards north of Witmer's bridge. It has been found on the land of Henry Layman and the subscriber, and without doubt extends into that of the heirs of Michael Metzgar, deceased.

I have no doubt of its being good *shell marl*, and as little of its value as a manure. The only question is, whether it will be found in sufficient body to pay the cost of opening the soil and working it. Be it what it may, whether this be the case or not in this particular instance, the presence of even a small deposit at one point in the county, would seem to indicate its existence at other localities, in probably larger quantities; and should cause observant farmers never to

lose sight of a new or strange looking substance, without attempting to learn its qualities and uses.

I send you a lump of this substance for inspection and analysis, by some one with more skill than myself.

THO. H. BURROWS.

Lancaster, June, 1852.

Agricultural Nuisances, No. 10.

THORNY CLOT-BUR, PRICKLY CLOT-BUR, BURTHISTLE.
Xanthium strumarium, Linn.

Its generic name is derived from the Greek *Xanthos*, yellow; because it was used, according to Anthos, to die the hair yellow. Botanists have found some difficulty in finding the proper place for this plant. Linnæus, in his *Artificial System*, placed it in his 21st class, *Monacia*, and 5th order *Pentandria*, but it is now generally put in the 17th class *Syngenesia*, and 4th order *Polygamia Necessaria*.

In the *Natural System* almost every writer has assigned it a new situation, but Torrey & Grey in their *Flora of North America* have placed in it their 74th order *Compositæ*, Tribe *Seneciodeæ*, sub-tribe *Melampodineæ*, and under Division, *Ambrosiæ*, where it appears to properly belong.

Nine species are known, two of these are natives of the United States, but the one under consideration is a native of the south of Europe, where it is a vile pest indeed. It was first introduced into this country in the South, from whence it has extended itself in every direction. In 1820, it made its appearance in Pennsylvania near Philadelphia; in 1835, it was found in Chester county; in 1840, I found it in the vicinity of Wrightsville, York county, and now it is found along the river as high up as Clinton county.

Its obnoxious character is but little remote from the Canada Thistle, for which it has been mistaken. It grows three or four feet high, and is much branched. The leaves are one to three inches long, one-fourth to three-fourths of an inch wide, egg shaped but tapering to a point; the upper surface is pale green; the under surface covered with short hairs of a grey color. The foot stalk is short, on each side of which is a three forked spine, each about an inch long, and very sharp, of a pale straw color.

The sterile and fertile flowers occupy different heads, which are solitary in the axils of the upper leaves, the heads nearly the shape of a guinea's egg, but small, covered with hooked prickles which form a rough bur. These burs often get into the fleece of sheep during winter, and almost ruin it. The whole plant is extremely objectionable and quite difficult to eradicate, if not prevented from perfecting its seed. It is, however, an *annual*, and if kept mowed down, will in a few years disappear, but a great coarse thorny weed, four feet high, producing thousands of seeds requires some energy to be kept in subjugation, but let it be promptly eradicated whenever it first appears.

J. M. M'INN.

Unionville, Centre co., Pa.

Cultivation of Tomatoes.

MR. EDITOR: Since the once despised tomato has grown to be a general favorite, a remark or two, tending to promote its successful growth and early ripening may perhaps not prove uninteresting. For many years I have cultivated this delightful and wholesome vegetable, having formed a partiality for it, long before it became so general a favorite as now and am fully satisfied that most of the improvements in its culture, suggested by those who appear desirous of seeing their names in print, are in fact no improvements at all. To-day a reformer in the art of cultivating them, tells us, that the tomato flourishes no where so well as in the very poorest soil. To-morrow another with equal pertinacity, assures us a deep, rich loam is decidedly the best. A third advises the pinching off of the side stems as rapidly as they appear. Now for my part, I have found, after some fifteen years cultivation, that soil of a middling quality not only produces the thriftiest vines, but the best flavored fruit; and I have learned moreover, that the pinching off of the side stems, &c., while it may possibly bring the fruit to a sickly, decaying maturity a few days earlier, also gives it an unpleasant acidity. Pruning tomatoes, like cutting away the leaves of the grape vine, to give the cluster a chance to see the sun more frequently and for a longer time, is a violation of one of nature's laws, and as such cannot but be attended with bad results. Here is my plan, which is natural and consequently simple, and by pursuing it steadily, I find that my tomatoes are just as early as those cultivated by some of my neighbors upon the improved plans.

My plants are grown in a cold frame. I sow them thin in order that the plants may grow strong. If by chance they are sown too thickly in one spot, I thin them out at once, while they are very small.—This gives me stout, stocky plants which do not require to be transplanted into other frames to strengthen, and lose by the transplanting all they have gained in the frame. So soon as the weather will admit, I set them out on the south side of a close board fence, planting them quite close to the fence. This gives the branches the benefit of the warm sun nearly the whole day; while the roots penetrating to the cool moist soil on the northern side of the fence take up the food necessary for the sustenance of the plant, readily and rapidly. So soon as they are too large to stand without assistance, I lay some brush in front of them which keeps them from the ground; and from the fact of their being planted on the southern side of the fence, the branches all tend southward, thus giving the fruit the benefit of a full exposure to the warm sun. By this simple plan, I secure large, well flavored and early tomatoes. Thorough hoeing every two or three days is far better than pinching off the leaves or branches.

E. A. STILLING.

Lower Dublin twp., Montgomery co.

The Ruta-Baga or Swedes Turnip.

MR. EDITOR: It has frequently been a source of surprise to me that greater attention has not been given to the cultivation of the Ruta-Baga in Pennsylvania. I have observed in several former numbers of the Journal, that you have pressed the matter upon the attention of your readers, but thus far, with seemingly little effect. In calling attention to the subject, I have not the vanity to suppose that any thing I may be able to say in behalf of Ruta-baga culture, will have any greater effect, than what you have already said, but as "constant dropping wears away stones," so the frequent direction of the attention of our farmers to this important subject may at length have the desired effect.

Without being able to speak with certainty, my own impression is, that in addition to the fact that no crop taken from the soil leaves it in finer condition for the succeeding one, it imparts to it also, a singular degree of fertility. I may be wrong in this, but my own experience has taught me to know, that the crop succeeding the ruta-bagas, always appears to do better than any other on my farm. Perhaps the increased fertility may be attributed to the fact that I always leave a considerable portion of the turnips in the ground during the winter, for the use of my sheep, thus creating a large amount of vegetable matter, the decomposition of which adds much to the fertility of the soil, particularly when, (as always should be the case) this large supply of vegetable matter is made available as a fertilizer by the application of a moderate dose of lime.

But apart from any advantages the ruta-baga crop may be to the soil in which it is grown, there are other and far more important considerations in favor of its general cultivation.

It is a well known fact that previous to the extensive cultivation of the root crops in England, that country was supposed to have reached the utmost limits of its capacity for supporting cattle; but that subsequently, it has been satisfactorily proven, that with the aid of the turnip its capacity in this particular has been more than trebled. Does not this fact speak volumes to those who are complaining of a want of manure sufficient to keep their soil in good tilth? If by the almost universal introduction of turnip cultivation into England, her powers of supporting cattle have been increased in the ratio of three to one, why may not the same results follow, in the United States? They would as certainly follow, as that summer follows spring.

The earliness and severity of our winters has been repeatedly urged as an objection to the cultivation of the ruta-baga. But this objection I cannot deem a valid one, as they have ample time to mature before the cold weather sets in, and if buried in pits or stored away in cellars, with the proper degree of ventilation, they will keep well during the winter;

the ruta-baga being less subject to decay than any of the other varieties of the turnip.

In concluding these remarks, I will merely advert to a few of the advantages which our farmers would derive from the extensive cultivation of this crop. It leaves the ground in a clean state, admirably adapting it to the crop which is to follow. In those sections of our State, which are conceded to be amongst the best sheep growing districts in the United States, the ruta-baga would certainly prove an invaluable crop. Again, where the farmer has to depend entirely upon dry food for his cattle during the winter, they rarely thrive so well, or are so strong and healthy as when they have an abundant supply of succulent food, such as the ruta-baga. That they possess fattening qualities is attested by the large number of cattle now fattened upon them and straw alone, in England. But apart from these evidences of their value, there is another consideration of the highest importance. The farmer who cultivates turnips for his stock is enabled to increase not only the number of his cattle, but what is of still greater value, the size of his manure heap, and consequently, the fertility of his soil. June is the month in which the ruta-baga should be sown, though many prefer the early part or middle of July. In the Rural New Yorker of June 17th, I find an excellent article on the cultivation of the ruta-baga, which might aid somewhat in convincing your readers of the utility of the crop, and the ease with which it may be cultivated.

EMANUEL LANDIS.

Westmoreland co., Pa.

CULTIVATION OF RUTA BAGAS.

A rich mellow soil is required,—they delight in deep sandy moulds, and new ground, grass-swards or clover leys, are well suited to their production. Liberally manured and well cultivated, such soils will produce heavy crops,—from eight hundred to one thousand bushels per acre have often been raised in favorable seasons. The value of the crop and the ease of its culture is much increased by careful and thorough preparation of the soil. The ground should be plowed very deeply, and if it be sward-ground, then thoroughly harrowed, or better, if worked with the wheel cultivator until it is in fine tilth, with at least four inches of surface mould above the undisturbed sod. Fifteen or twenty loads of well rotted manure should be applied to an acre, either during the harrowing and working, so as to have it well intermixed with the soil,—or, after it is performed, furrow the ground about twenty inches apart, and place two thirds of the quantity of manure in the furrows, then cover with the plow, harrow lightly lengthwise, and drill in your seed with some drill machine (Hallock's hand drill will do it,) on the ridges thus formed. If you have no drill a line can be traced about an inch deep on the top of the furrow and the seed sown from the hand, or a horn or cup with a small hole to permit its escape in proper quantities. It should then be carefully covered with earth. If the manure is spread broad-cast, it is not necessary to ridge the ground, though it is often practiced. About one pound of seed is sufficient for an acre.

Apples for Swine.

MR. EDITOR:—As there is fair prospect of an abundant crop of apples this season, the agitation of the question, whether they do or do not contain fattening qualities in a sufficient degree to render them profitable as food for swine, is entitled to a passing consideration. Various statements in regard to their value have been published from time to time; but no definite fixed method of rendering them most available has yet met my eye. After an experience of several years, I have come to the conclusion that although they possess fattening qualities, they do not possess them in a sufficient degree to warrant the assertion that *alone*, they can be used with success in fattening hogs. Hogs will sometimes thrive well upon them, and at other times will lose flesh if confined to them exclusively as food.

Three years since, having an abundant crop, I concluded to test their value as food in various ways.—First, I tried them in their natural state, as they came from the orchard. For a short time the hogs devoured them greedily; but I soon found out that they tired of them, and that even when they ate them most greedily, did not thrive. I next threw them into the hogsheds in which my slops were kept, permitting them to remain there for several days before using; by which time many of them (especially those partially decayed when thrown in) were well saturated with the slop-water. They were then fed; but the hogs did not thrive any better than before the apples were given them. I then erected a temporary boiler in which the apples were placed, mixed with about one-half the quantity of corn meal I usually fed the hogs. The whole was then boiled, until the apples were soft enough to be broken, by stirring—they being of the sour kind. This mixture was then fed in the same quantity as the meal mixture alone, had been formerly. On this food the hogs grew larger and fatter, observing which, I persevered in it until killing time, when I found them in quite as good condition, I think, as I could have had them by feeding them in the usual way. By this plan I saved one-half my corn meal at the expense of the wood necessary to boil the apples. Whether any thing was saved by the experiment, I am not prepared to say, as I kept no account of the wood burned. From the above experiment I am induced to believe that apples in their natural or raw state, do not possess sufficient nutrition to fatten swine; but that if steamed or boiled, and mixed with meal, they may be used to advantage, provided wood is not too high in price.

ROBERT TYSON.

Westmoreland Co., June 18, 1852.

A Letter from Butler County.

MR. EDITOR:—Our farmers have at length become aroused to a sense of the importance of taking a step in advance of the old fashioned mode of tilling the soil. This has long been needed in our county, and

When the plants come up they should be dusted with lime, ashes or soot, which not only assists their growth, but serves as a partial protection from insects. If the fly is likely to be very injurious, a sprinkling of fish oil is said to be a perfect protection.

The cultivation should be similar to that of carrots, &c.,—careful and thorough, to the utter destruction of all weeds and grass, and keeping the soil mellow and open to the influence of air, rain and sunshine. The plants should be thinned in the rows to about eight inches apart, so that they may have full room (if they will,) to attain that diameter. If the seed fails to come up in some places the plants may be transplanted from the thicker portions, and if done with care in damp weather, they will make an equal growth with the others.

The ruta-baga should be harvested before freezing weather, though slight frosts will not hurt them.—They may be kept in cellars, buried in pits, or covered with straw and earth in heaps, in the field, and if properly done, and ventilation allowed, will keep without difficulty through the winter. For late winter and spring feeding they are "just the article."—*Rural New Yorker.*

Birds and Looking Glasses.

MR. EDITOR: A paragraph which had its origin somewhere in the East, has been going the rounds of the papers, in which the writer strongly recommends the use of looking glasses for the purpose of frightening birds from fruit trees. Having a number of young cherry trees, (in bearing this season for the first time,) and being very desirous of ascertaining the character of the fruit they bore, I tried several devices to frighten away the birds, who were making terrible havoc amongst them; but all my attempts were failures. At length the looking glass remedy was thought of, and quite a number of pieces of broken looking glass of good size was procured. These I suspended as per direction, in various parts of the trees, fastening them in such a manner that the slightest breeze would cause them to turn. Having arranged them all very nicely, I sat down under a neighboring tree for the purpose of enjoying the terrible fright in store for the little feathered thieves. Presently a male robin alighted on one of the trees, and much to my surprise and chagrin, proceeded as leisurely to pluck a cherry, as though no such thing as looking glasses were hanging around. A black-bird came next, and followed the example of the robin, and immediately after him, a small flock of those arrant thieves—cherry birds. Had each one taken a cherry and with it his departure, I could have borne it, but the scamps instead of acting thus, perched themselves near the finest clusters, and selecting the ripest, commenced pecking them most unmercifully, the looking glasses to the contrary notwithstanding. Seeing this, I gave up in despair, firmly convinced that either the birds in our vicinity were not easily frightened, or that the looking glass experiment was a humbug.

This is the farmer's busy season.

is none the less gratifying because somewhat behind our eastern brethren. "Poor Butler" is the title usually given our country, and I am led to indulge the hope that efforts which are now making will result in the permanent establishment of those principles upon which successful agriculture alone can rest, and the redemption our character from the stigma which hangs upon it.

The system heretofore pursued in this section of country, has been that familiarly known as the "skinning system," or in other words, taking every thing that can be got from the soil; and returning as little as possible to it. For a number of years nature winked at these plunderings from her stores, and good naturedly supplied the hungry demand, so long as she had the power; but at length wearied with the unreasonable demands made upon her, she, in common parlance, "shut down," and now our farmers are compelled to adopt such measures as will serve to repair the error into which they have fallen. These remarks will not of course apply to all, as we have some excellent farmers in our county, who for a series years have been laboring, and successfully too, on the proper plan.

The first step towards improvement in every department of life, is to discover that we have been acting upon wrong principles. Having learned our error, we are striving to correct it. We have determined to deal more fairly with mother earth, by restoring at least a portion of the good things of which we have been robbing her; fully convinced that she is of a forgiving spirit, and will not give the "cold shoulder" to our efforts. Hoping that the more general introduction of the Farm Journal will serve to help us in our good resolves. I am yours, THOS. J. LAYTON.

Scrub Grass, Buller Co., Pa.

"Perseverando omnia vincit," friend Layton. Get your Society into the hands of enterprising men, though there be but half a dozen—men who are not afraid to undertake a great reform, and having having undertaken it, will see it through. "There is a better day coming" for agriculture in Pennsylvania, and its light, we trust, will be shed as fully upon "Poor Butler," as you term your county, as upon any other county. Introduce the Farm Journal, and you shall have the benefit of the experience our best farmers, as well as of our own feeble efforts in your behalf. Let us hear more frequently from you, informing us what progress you are making.

Pennsylvania Horticultural Society.

The stated meeting of this society occurred on Thursday evening, June 15th, 1852, in the Chinese Saloon, Philadelphia. Dr. W. D. Brincklé, V. P., in the chair. The Exhibition on this occasion was very interesting and the display excellent, consisting of four large contributions of green house plants—an extensive display of Strawberries and Cherries, and two long tables of forced Vegetables. The collection of plants from C. Cope's houses contained some

thirty choice specimens—*Lobelia racemosa*, a new plant seen for the first time; a fine and well grown specimen of the *Cuphea platycentra*, a large *Agapanthus umbellatus*, *Gongora maculata*, *Fuchsias* in variety, select *Verbenas*, *Geraniums* etc.; also another cut flower of the famed *Victoria regia*, and many of the night blooming cereus. From Frederick Lennings—a fine plant of *Allamanda cathartica*, *Clarendrum devoniense*, *Cyrtoceras reflexa*, *Begonias*, *Hydrangeas*, *Achimenes*, *Gloxinias*, in all about 2 dozen specimens. From Robert Buist's—many choice fancy *Geraniums*, fine *Fuchsias*, *Petunias*, *Angelonia*, *Rondeletia*, together nearly twenty plants. Peter Raabe's table contained numerous seedling *Verbenas* remarkably fine and choice. The floral designs, Baskets and Boquets, by John Miller gardener to C. Cope, Robert Kilvington and others, were very showy. The fruits, however, were the attraction and decidedly tempting; the display of Strawberries from Jos. S. Lovering's has not been surpassed on any former occasion, consisting of the Iowa, Burr's Pine, Keene's and Hovey's Seedlings; from Gerhard Schmitz another seedling of merit, fine in flavor, large in size and rich in depth of coloring, he has named it the "Pennsylvania"; and from C. Cope's fine Hovey's Seedling. Cherries were shown by James Bisset, gardener to James Dundas, Isaac B. Baxter, Mrs. J. B. Smith, and T. P. James, the May duke variety, and Robert Cornelius the Bleeding heart variety. The tables of vegetables were from C. Cope's and R. Cornelius' gardens and were creditable to their gardeners.

Premiums awarded were as follows:

By the Committee on plants and flowers: *Plants in pots*, for the best and most interesting collection, to Thos. Meehan, gardener to C. Cope; for the second best, to John Pollock, gardener to Fred. Lennig; for the third best, to Wm. McIntosh, foreman to Robert Buist.

Boquet design: for the best, to John Miller, gardener to Jos. S. Lovering; for the second best, to Thos. Meehan; for the best hand Boquet, to the same; for the best formed of indigenous flowers, to the same; *Basket*, for the best formed of cut flowers to Robt. Kilvington, for the 2nd best to Thos. Meehan; and for the best formed of indigenous flowers to the same; and a special premium of two dollars, to Peter Raabe for a fine display of Seedling *verbenas*—and notice a number of beautiful flowers of the night-blooming cereus, and a new plant, the *Phacelia setosa*, grown from California seed by Wm. Hobson.

By the Committee on fruits: *Strawberries*, for the best, the "Pennsylvania" to Gerhard Schmitz; for the second best, the Hovey's seedling, to John Miller, gardener to J. S. Lovering. *Cherries* for the best, the May duke to James Bisset, gardener to James Dundas; for the second best, the May duke, to Isaac B. Baxter. The Committee observe the Strawberries were remarkably fine and of great size.

By the Committee on Vegetables: *Vegetables*, for the best display by a private gardener to Thos. Meehan, gardener to C. Cope; for the second best, to Thos. Meehan, gardener to Robert Cornelius.

On motion ordered that Delegates to represent the Society in the "National Agricultural Convention," be appointed: when the Chair named the following members: Messrs. David Landreth, Dr. Robert Har, John Price Wetherill, Robert Robinson Scott, Clayton B. Rogers, and Thomas Hancock.

Four resident members were elected. On motion adjourned. THOS. P. JAMES, Rec. Sec.

THE FARM JOURNAL.

Agents.

THE FARM JOURNAL may be had at the following places:—

W. B. ZIEBER, South 3d St., principal agent for Philadelphia.	Lancaster, Pa.
W. H. SPANGLER,	Columbia, Pa.
B. F. SPANGLER,	Harrisburg, Pa.
GEO. BERGNER,	Pittsburg, Pa.
H. MINER,	Chambersburg, Pa.
J. R. SHRYOCK,	Carlisle, Pa.
H. M. RAWLINS,	York Pa.
A. L. WARFIELD,	

and of Booksellers generally.

500 AGENTS WANTED.

We are desirous of securing one or more competent agents in every county in Pennsylvania, to canvass for the *Farm Journal*. Our terms are liberal, and we are assured by well-informed friends in every portion of the State, that competent and active agents could not fail to succeed well. We therefore invite persons desirous of taking agencies to address us (*post paid*) on the subject; furnishing us with satisfactory reference, and stating in what particular county they are desirous of canvassing.

Premium List of the State Society.

We had hoped to present to our readers this month, the Premium list of the State Agricultural Society; but have been disappointed. It is to be regretted that it has not already been issued. The lists of the New York, Maryland, Ohio and other State Societies, have been before the public for some time past. The earlier the day of publication, the greater, in all probability, the display will be; as the premiums offered are strong incentives to exertion. In a little more than three months the Fair will be held, and every hour of that time, will be necessary to enable persons who desire to compete for premiums, to prepare the articles, get their stock in good condition, &c. We are authorized to state that the premiums will be much more liberal this year than last, so that the inducements to compete for them will be still stronger.

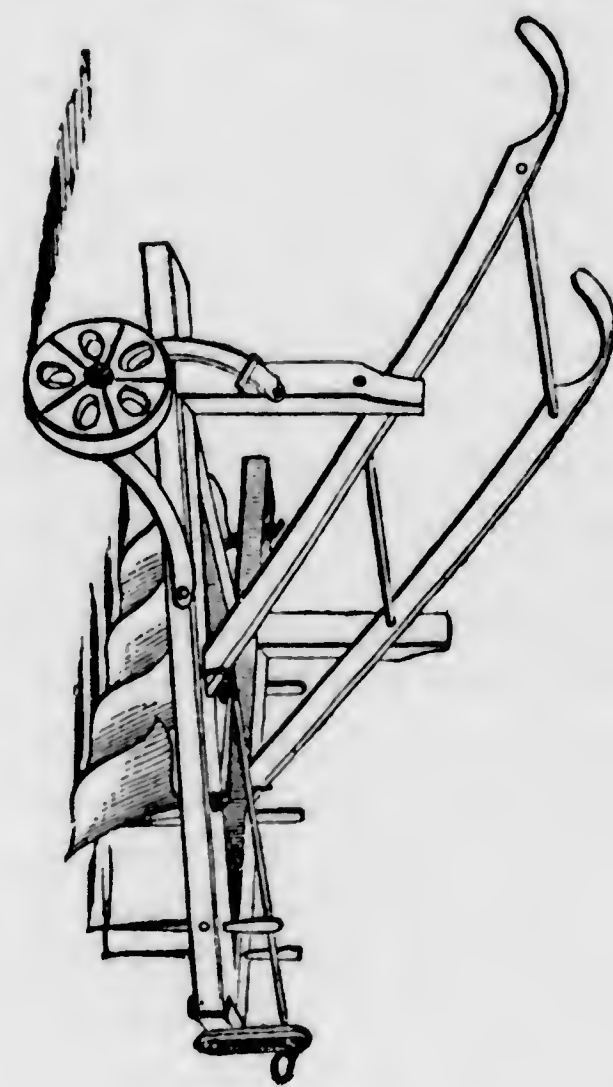
NATIONAL AGRICULTURAL CONVENTION.—A circular emanating from a majority of the State Agricultural Societies of the United States, and addressed to the friends of Agriculture throughout the U. States, inviting them to attend a meeting to be held in the city of Washington, on the 24th of June, for the purpose of forming a National Agricultural Society, was received at too late a date to admit of insertion in our last. Now it is too late, yet we hope the objects contemplated by those who are moving the matter, will be fully realized. Every movement of this kind is calculated to advance the interests of Agriculture, and should, therefore, be encouraged. We will lay the proceedings of the Convention before our readers in our next.

Acknowledgments.

Cochin China Fowls. Mr. Charles Sampson of West Roxborough, Mass., has our thanks for a pair of very superior Cochin China pullets, of his own importation. They are beautiful fowls, and thus far have proven themselves excellent layers. Mr. S. has a few of these fowls for sale at \$10 per pair. If any of our friends desire a sight of them, they can be gratified by calling at our residence.

Mr. C. B. Rogers, dealer in Agricultural Implements, Seeds, &c. 29 Market street, Philadelphia, has sent us one of his "Cast Steel Extending Point Plows," and also one of his Expanding Cultivators. They are remarkably well finished implements and so far as a mere examination of them, without trial, enables us to judge, well adapted to do good work.—A plow of this same kind was exhibited at the World's Fair, where it attracted considerable attention: but from the fact that no person was present to have its merits tested, no report, we believe was made concerning it. We shall have a fair trial given it, and will, at a future day, notice its work. Plows of this kind may be seen at Mr. Steinman's Hardware Store, the only agency for the sale of them in Lancaster.

The Cultivator, a cut of which we give, is we think a good implement, differing somewhat from the Cul-



tivators in general use. The arrangement for expanding or contracting its width is very complete.—The teeth, too, differ from the old kinds; some (as represented in the cut,) being of the form of small plows, others of the usual shape, excepting the part nearest the frame, which is wider, and better calculated, we think, to effect a more complete pulverization of the soil. Mr. Steinman has the Cultivators for sale also.

A visit to the residence of Caleb Cope, Esq.

Availing ourselves of a few leisure hours, while on a visit to Philadelphia during the last month, we made, by invitation, a flying trip to the beautiful country seat of Caleb Cope, Esq., near Tacony. We found the gentlemanly proprietor at home, and as we had but an hour to spend, proceeded under his guidance to the different points of interest about the garden and farm.

Our attention was, of course, first directed to the house containing the far famed *Victoria Regia*, a plant of which Mr. Cope has, thus far, been the most successful cultivator in the world. We will not attempt a description of the costly arrangements necessary to a growth of this royal plant, nor enter into the details of expense incurred. Suffice it to say that Mr. C. has won the reputation of being one of the most successful living horticulturists, at a cost of several thousand dollars.

We had only time to take a hasty look at the "Queen of the Aquatics," as it reposed in silent grace and majesty on the bosom of the waters—its gigantic leaves, four in number, covering almost entirely the surface of the tank, which is eighteen feet in diameter. Several of the leaves were more than six feet diameter or nineteen feet in circumference. We could have lingered for hours around this interesting spot, examining the beauties and wonders of the plant, and listening to the details of the mode of culture, the anxieties attendant upon the first attempt, and the feelings of triumph, when in its glory, the superb plant unfolded all its beauties; but the rapidly passing moments compelled us to leave, after hastily examining a number of the rare and elegant plants that surround the *Victoria*.

We next proceeded to the green house containing those freaks of nature, the Air plants. Every thing in this department was in keeping with the character of the plants growing there, and displayed great taste. Taking a hasty glance at the splendid collection of Cacti in the next house, numbering many hundred varieties, of the finest character, we were conducted to various other green houses, one containing a choice collection of Camellias, another of grapes, peaches, nectarines, plums, &c., another roses &c.; after which, leaving the green houses and their attractive occupants, we took a hasty stroll across the well-kept lawn, to a grove of majestic oaks, immediately in front of the beautiful mansion house. Thence to the barn—a building in external appearance far handsomer than many country residences, and in internal arrangements complete in every particular. We had not time to examine minutely, or note down the excellency of the plan of this barn; but think it possessed of very many advantages. The dairy was next visited, where neatness prevailed in every department, and after an exam-

ination of the admirable working of the two hydraulic rams, which supply the green houses, fountains, &c., with water; our courteous host escorted us to the omnibus, by which we were conveyed to Tacony.

Our visit, though brief, was fraught with pleasure and our thanks, as well as the thanks of those who accompanied us, are due Mr. Cope for the very gentlemanly attention paid us, during the time we spent on his premises.

MEETING OF THE FRUIT COMMITTEE OF THE LANCASTER CO. AG. SOC.—The Committee met at the house of Daniel Rhoades, Esq., on Wednesday, June 21.—The display of fruits was small but excellent; amongst the specimens worthy of note, were some fine, well flavored cherries from Mr. Rhoades' garden; also, some very large and remarkably handsome cherries of the *Cumberland Seedling* variety. Several of these were more than three inches in circumference, although not fully ripe. Being a tolerably early variety, extraordinary in size, full fleshed, prolific, and of good flavor, the more extensive cultivation of the *Cumberland Seedling* should be an object with our fruit growers. Mr. David Miller of Carlisle, Cumberland Co., can, we understand, supply young trees.

But the most attractive part of the display was a fine seedling strawberry presented by Mr. J. L. Grosh, residing near Petersburg in Lancaster. One of these berries measured nearly five inches in circumference. In point of size, generally, they are perhaps not equal to the Hovey Seedling, in color deeper, in flavor far superior, and well adapted for carrying. We learn that this seedling was produced from the Hovey, but could not ascertain the full particulars. It is represented as a prolific bearer, and we think it well worthy of attention.

Our tasteful and enterprising friend, Hon. D. B. Vondersmith, of Lancaster, has recently, in addition to the many rare and beautiful plants already in his collection, added a young plant of the celebrated *Victoria Regia*. Mr. V. has spared neither pains nor expense to insure success in his undertaking, having erected a handsome and commodious tank, and the fixtures necessary to the growth of the plant. If successful, as we have no doubt he will be, our citizens will enjoy a sight of this gigantic and elegant flower. We are pleased to make mention of Mr. V's liberality and enterprise, and hope it will be followed by others whose means and leisure give them ample facilities for attention to horticultural pursuits.

AUSTRALIAN WHEAT.—The attention of our farmers is directed to the advertisement of Messrs. A. B. Allen & Co., of New York, in which they offer Australian Wheat for sale. We are not familiar with the character of the Wheat, but observe that it is cultivated with success in New York, and that it is fast rising in favor with the farmers of that State.

Chester County Horticultural Society.

We could not but regret that it was not in our power to attend the Semi-annual Horticultural Exhibition, held at West Chester on the 17th, 18th and 19th of June. We have always enjoyed ourselves with our Chester County friends, and it would have afforded us much pleasure to have been with them on this occasion. We are gratified to learn that the Exhibition was creditable in the highest degree; the various departments of flowers, fruit, vegetables, needle work, mechanic arts, &c., being well filled.—The attendance, too, of citizens of Chester and the adjoining counties, was full, and the warm interest manifested at preceding exhibitions still maintained. This is gratifying and furnishes a strong incentive to the friends of Horticulture and Agriculture, in other counties of the State, to follow the laudable example of the citizens of Chester county. These delightful exhibitions are the result of the well directed efforts of a few spirited individuals, who several years since, under discouraging circumstances resolved to attempt to establish a Horticultural Society. From small beginnings they have gone on flourishing, until the interest and zeal of the enterprising few, now pervade the entire county, and is still on the increase. It would afford us pleasure to publish the proceedings, but our limited space this month forbids. Our friends will, we hope, take the will for the deed this time.

Tobacco Growing in Pennsylvania.

We are glad to observe that the mania for tobacco raising in Pennsylvania has somewhat subsided, and that the quantity planted this season, will not be one fourth that of last. We never were in favor of the culture of this crop in our State, believing, that our lands may be more profitably devoted to the culture of other crops better adapted to the soil and climate. It never would have obtained a foothold with our farmers, but for the fact that the high prices secured for the crop of 1850, led many to suppose that a speedy fortune would be realized by every one who engaged in its culture to any extent. Extravagant prices were paid for lands adapted to its successful cultivation. These lands were put in the finest possible condition, at a very heavy expense, the crop was cultivated with the utmost care, generally, and the result has been a complete glut of the market, the best quality commanding only five cents, and the inferior from three to four.

CHAPPELL'S FERTILIZER.—P. S. Chappell of Baltimore desires us to call attention to his improved fertilizer, which is represented as highly valuable for agricultural purposes. Having never had an opportunity of testing its merits, nor of witnessing its effects upon particular crops; we are not prepared to say more of it, than to call the attention of our readers to the advertisement of Mr. C. in another part of the Journal.

What is Chemistry doing for Agriculture.

From a very able review of a number of valuable agricultural publications, we condense the following, showing, in a degree, what science has done for the farmer. A candid perusal of these extracts will serve perhaps to convince some who are skeptics in regard to the value of science, and who look with favor upon practice only, that the subject of farming must be viewed from different stand-points, in order to arrive at correct conclusions.

Among the parts of the living animal, the muscles occupy an important place, not merely in bulk, but in reference also to the health and strength of the body. The muscles contain nitrogen; and, besides a little fat, are mainly composed of a substance to which, because of its stringy or fibrous nature, chemists give the name of *fibrin*. Now this fibrin is almost identical, in chemical character and composition, with the white of eggs, (albumen,) the curd of milk, (casein,) with the gluten of wheat, and with certain similar substances which exist in beans, peas, barley, oats, potatoes, turnips, cabbage, and, in fact, in almost every vegetable esculent, in greater or less proportion. All these substances contain nearly the same percentage of nitrogen, and are distinguished by the general name of *protein compounds*.

It is now ascertained, that when vegetable food is introduced into the stomach, the gluten, albumen, &c. which it contains, is dissolved and extracted from it, conveyed from the stomach into the blood, and by the circulating blood carried to those parts of the body in which, owing to the natural waste, or to the demands of animal growth, the muscles require to be renewed or enlarged. The power of a vegetable substance, therefore, to increase or sustain the muscles of an animal, depends materially on the quantity of these protein compounds it contains—or on the quantity of nitrogen by which that of the protein compounds is indicated and measured. It must be of importance, therefore, to know how much of these compounds, or in other words, how much nitrogen different vegetable productions usually contain—how far the usual proportion is subject to variation—and how far it is within the reach of human control. Such questions have obviously an intimate relation to the actual money value of food in the rearing and nourishment of animals; and a few illustrations will show how chemistry has recently occupied itself in solving them.

It is the object of chemical research not merely to explain known facts, but to remove misapprehensions and correct erroneous opinions. The recent determinations of the proportion of nitrogen contained in wheat have served both these purposes. Thus it was asserted and believed, that the wheat of warm climates always contained more nitrogen, and consequently was more nutritive and of higher money value, than the wheat of our more temperate countries.—But later researches have corrected this hasty deduction, and have placed our home wheat in its proper position, economical and nutritive, as compared with the wheat of India, of Southern Australia, or of the Black sea.

Again: the British miller usually requires a portion of foreign wheat to mingle with our native grain, both to make it grind more easily, and to satisfy the baker with a flour which will stand much water. The pastry-cook, and the macaroni maker, also demand of

him a flour which will make a peculiarly adhesive dough. These several qualities were supposed to be inherent only in wheat which abounded, in an uncommon degree, in gluten, and which was produced under especially favorable conditions of soil and climate. Modern chemistry has the merit of gradually removing these misapprehensions, and of directing us to the true causes of all such differences.

So in regard to the superior amount of muscle-forming matter supposed to exist in wheat in comparison with other kinds of native grain, such as the oat.—Experience had long taught the Scotch that oats, such as they grow in their climate, are a most nutritious food; but the habits of the more influential English, and the ridicule of a prejudiced lexicographer, were beginning to make them ashamed of their national diet. Chemistry has here stepped in; and by her analysis of both, has proved not only that the oat is richer in muscle-forming matter than the grain of wheat, but that oatmeal is, in all respects, a better form of nourishment than the finest wheaten flour.

But what is more, chemistry has brought us acquainted with the value of parts of the grain formerly considered almost as waste. The husk or bran of wheat, for example, though given at times to pigs, to miller's horses, and other cattle, was usually thought to possess but little nutritive virtue in itself. Analysis however, has shown it to be actually richer in muscular matter than the white interior of the grain. Thus the cause of its answering so well as food for cattle is explained; and it is shown that its use in bread (whole-meal bread) must be no less nutritive than economical.

The true value of other kinds of food is also established by these inquiries. Cabbage is a crop which, up to the present time, has not been a general favorite in this country, either in the stall or for the table, except during early spring or summer. In North Germany and Scandinavia, however, it appears to have been long esteemed; and various modes of storing it for winter use have been very generally practised. But the cabbage is one of the plants which has been chemically examined, in consequence of the failure of the potato, with the view of introducing it into general use; and the result of the examination is both interesting and unexpected. When dried so as to bring it into a state in which it can be compared with our other kinds of food, (wheat, oats, beans, &c.) it is found to be *richer in muscular matter than any other crop we grow*. Wheat contains only about 12 per cent., and beans 25 per cent.; but dried cabbage contains from 30 to 40 per cent. of the so-called protein compounds. According to our present views, therefore, it is preeminently nourishing. Hence, if it can but be made generally agreeable to the palate, and easy of digestion, it is likely to prove the best and easiest cultivated substitute for the potato; and no doubt the Irish colcannon (cabbage and potatoes beat together) derives part of its reputation from the great muscle-sustaining power of the cabbage—a property in which the potato is most deficient.

Further, it is of interest—of national importance, we may say—that an acre of ordinary land will, according to the above result, produce a greater weight of this special kind of nourishment in the form of cabbage than in the form of any other crop. Thus, 20 tons of cabbage—and good land will produce in good hands, 40 tons of drum-head cabbage on an imperial acre—contain fifteen hundred pounds of muscular matter; while twenty-five bushels of beans contain

only four hundred pounds. The preference which some farmers have long given to this crop, as food for their stock and their milch cows, is accounted for by these facts; while, of course, they powerfully recommend its more general cultivation as food for man.

We may add, while speaking of cabbage, that it is known to be so exhausting to many soils, that wheat will scarcely grow after an abundant crop of it. It springs up indeed, but yields little straw, and early runs to a puny ear, containing little grain. But the same analysis which shows the value of the cabbage crop, shows also what it takes from the soil; and explains therefore the kind of exhaustion produced by it, by what special applications this exhaustion is to be repaired, and how repaired at the least cost.

We shall take occasion to make more selections from this excellent article; at the same time we commend the above to the close attention of our readers, believing that every one, whether farmer, mechanic, or merchant, may be benefitted by a perusal of them.

Currant Wine.

Here is a receipt for making currant wine, worth to any of our subscribers who have a bushel of currants, at least two year's subscription to the Journal. We had an opportunity of tasting wine made after it, which was of such excellent quality, that we could not resist the temptation of publishing the receipt.—Here it is; try it and report the results:

To one quart of ripe currant juice add three pounds of the very best white sugar, (the finer the quality, the better,) and to this add as much water as will, with the juice and sugar, make a gallon. Put the mixture into a keg or demijohn, leaving it open for two weeks, or until the fermentation subsides; then cork it up tightly, and let it remain quiet for five months, when it will be fit for use and may be racked off into bottles.

THE MOYAMENSING STRAWBERRY.—Through the kindness of Mr. H. Dreer, seedsman, Chesnut street, Philadelphia, we had the pleasure of partaking of some of the new seedling strawberry—the Moyamensing. Those of which we partook, we thought very superior, not only in size, but in flavor. We understand that it is a prolific bearer, each healthy plant throwing up five or six fruit stems.—The demand for the fruit as well as the plants has been large. Plants may be procured from H. Dreer, seedsman and florist, Chesnut st. below Third, Philadelphia.

Book Notices.

Waverly Novels. Abbottsford Edition. Lippincott, Grambo & Co. We are indebted to the publishers for the first four volumes of this fine edition of Sir Walter Scott's Novels, comprising, *Waverly, Guy Mannering, The Black Dwarf, Old Mortality, and The Antiquary*. It would be superfluous in us to

say a word in regard to the character of these, and the volumes which are to succeed them. The merest tyro in English literature is familiar with the name of Scott and should be with his writings. The publishers design issuing them in parts, semi-monthly, in paper, at 50 cts. per volume, or twelve handsomely bound volumes when the whole is completed, for twelve dollars. The want of just such an edition as this has long been felt. The unwieldy form in which all the American editions of Scott's novels have been presented to the public, has had the effect of deterring many a reader from a perusal of them. The present edition besides being a correct reprint of the celebrated Abbottsford edition, is very handsomely printed upon fine paper, with large, new and beautiful type, and the volumes are of a size which renders them neat and convenient. In addition to which they are published at a price, scarcely more than one fourth that of the English Abbottsford edition.

The North British Review for May, is on our table. Its contents are, Prospects of British Statesmanship and policy, Phrenology—its Place and Relations, Village Life in England, Romanism and European Civilization, Life and Chemistry, King Alfred, Binocular Vision and the Stereoscope, Memoir of Dr. Chalmers. This able review, together with the London, Edinburgh, and Westminster Reviews, and Blackwood's Magazine, may be had for \$10, from the publishers, Messrs. Leonard Scott & Co., New York.

The Philadelphia Florist. A friend has kindly sent us the first number of this new candidate for favor with our Horticultural friends. A hasty glance at its contents, induces us to think well of it, and we do hope for the credit of Philadelphia—the home of the Pennsylvania Horticultural Society—that the enterprise will not only be sustained by liberal subscription, but that the many able writers in Philadelphia and vicinity will give it the aid of their pens. Terms \$1 per annum. Address R. Robinson Scott, Philadelphia.

DRILLS! DRILLS!! DRILLS!!!

WE are now manufacturing the LARGEST and BEST ASSORTMENT OF SEED PLANTERS ever offered to the public; several varieties of which we have constantly on hand. Those interested are respectfully invited to call, examine and satisfy themselves of their merits.

We have so improved and simplified our Drill, as to enable us to sell it at the following reduced rates:

One with seven tubes and wooden Seed Roller, quantity regulated by Screws,	\$80 00
For each additional Tube,	7 50
Seven Tabled do., iron Seed Rollers, regulated with screws	85 00
Each additional Tube,	10 00
Seven Tabled do., Single Hopper, and Patent Iron Seed Rollers, which, by the movement of a single screw, is regulated to seed any desired quantity per acre,	85 00
Each additional Tube,	10 00

In addition to the foregoing, we are building a large number of Slide Drills, which have been satisfactorily tested, and are warranted decidedly superior to any other Slide Drills in the market, particularly in the even distribution of the Grain upon rough and hilly ground; also, in the facility and precision by which it is

regulated to sow any desired quantity per acre, as well as in the lightness of draft, and general simplicity and durability.

For one of these Machines with seven Tubes, \$80 00
" each additional tube, 5 00

The above Machines are Warranted not to Cut, Break, or Waste Grain; to be made of the best materials, in a substantial and workmanlike manner, and to do the work more perfectly than any other. They are not liable to choke with white caps or straw, and are suited to rough and hilly, as well as smooth and level land.

Owing to the peculiar form of our depositing tubes, they run easier and free themselves from filth better than any others.—These Tubes are supplied with Reversible Steel Points, either end of which can be extended as they become worn. The simultaneous throwing into and out of operation of the Seed distributing and depositing apparatus, (which we have patented) renders our machine capable of being managed with much more ease and certainty, particularly in seeding point and other irregular lands, than any other Seed Planter.

We also manufacture Horse-Powers and Threshers, Clover Hullers, with and without Fans, Horse-Rakes, Corn-Shellers, &c. Also, Steam Engines and Mill Work, Screw Cutting done to order; Castings of every description, of the best quality, furnished at Wilmington Prices.

S. & M. PENNOCK,
Kennet Square, Chester county, Pa.
P. S.—Pascall Morris & Co., West Chester, are Agents for any Machinery we build.
July 1, 1852.—3m.

MYERS' CHEMICAL ANIMAL MANURE.

That of offering to the public a Manure which comprises all that could be wished—its cheapness and surprising effects in producing larger crops in any kind of soil—is lasting and enduring qualities.

The subscriber offers this Manure to the public with a full knowledge of its powerful effects upon ground where used. This Manure must take its precedence above all others; its adaption to all kinds of soil, and every particle of fertilizing properties being preserved in the mode of manufacture, render it at once cheaper than any other manure used for all kinds of crops. Its effects are wonderful. A supply always on hand, WM. MYERS,
Seventh Street near Germantown Road, Kensington, Phila.

READ THE FOLLOWING CERTIFICATES.

GERMANTOWN, October 8, 1851.

To Mr. Wm. Myers—Sir—Having tried your Chemico-Animal Manure upon potato ground, this season, I find it produce one-third more and larger potatoes than the best horse manure on the same ground.

WM. K. COX.

The following additional certificate just received, speaks for itself.

WOODBURY, N. J., 10th mo. 20th, 1851.

I have used upward of 1000 bushels of WM. MYERS' ANIMAL MANURE, on corn, potatoes, turnips, melons, and some other crops during the present season, and am satisfied that it is an economical and powerful manure, for turnips, radishes, and other root crops—my experience has shown it to be especially valuable.

DAVID J. GRISCOM.

SPRING FIELD FARM, Cecil County, Md.

Mr. Wm. Myers—Dear Sir—I manured with your Chemico-Animal Manure about 38 acres of the poorest land on my farm, and put half in Oats, and the balance in Corn. Although it was got in quite late, and the season very unfavorable for the Corn crop generally, yet notwithstanding, I can say that it is decidedly the best Corn I ever raised, although I have farmed for 20 years, and have had good Corn land, and Manured well, as I thought, in the old way. While my neighbors' Corn was quite yellow and leaves curled up with the drought, mine was green and growing rapidly; therefore, I consider it one of the most valuable manures I ever used, and shall take pleasure in recommending it to my neighbors and others.

Yours respectfully, E. M. SEELY.

AUSTRALIAN WHEAT.

VERY SUPERIOR.—The berry of this grain is extra large, and makes the best of flour. It produces a greater average crop than any other variety now grown in N. York. Several years experience in its cultivation, proves that it is less liable to rust or mildew than other kinds; and as the stalk is large and strong, it is also less liable to blow down or lodge. Price, \$4 per bushel. Other varieties of wheat, such as the White, Flint, Mediterranean, Black Sea, &c.

A. B. ALLEN & CO.,
Agricultural Warehouse & Seed Store, 189 & 191 Water street,
New York. (July 2m)

R. BUIST,

NURSERYMAN & SEED GROWER,

HAS always on hand at his seed Store, 97, Chesnut Street, Philadelphia, a large stock of Seeds of his own growth, a very important item to purchasers, as he is a practical grower, and has been engaged in his profession over 30 years. His nursery ground is amply stocked with Fruit, Shade and Ornamental Trees, accurately named and properly cultivated. Every article sold at the lowest rates, and warranted to be as represented.

Seed Store, 97 Chesnut Street, Philadelphia. Nurseries and Seed Farm, Darby Road, two miles below Gray's Ferry.
June 1, 1851.

R. BUIST.

TO FARMERS, AGRICULTURISTS AND GARDENERS.

CHAPPELL'S IMPROVED FERTILIZER—Substitute for Guano. The subscriber would call the attention of the Farmers of Pennsylvania to the chemical compound or manure, manufactured by him for the renovation of "worn-out lands," and known as "CHAPPELL'S IMPROVED FERTILIZER."

This article is composed of the same materials as are found by analysis in the ash of plants. It consists of a mixture (in proper proportions) of *Bi-Phosphate of Lime and Magnesia*, (or bones dissolved in Sulphuric Acid,) *Sulphates of Ammonia, Potash, Soda and Lime, Animal Charcoal, Silicates of Potash, Alumina and Magnesia*, and, as these constituents indicate, is intended to restore to the soil all the inorganic materials abstracted by vegetation. It has been ascertained that a soil containing a sufficient quantity of these salts, is always fertile; and their absence constitutes what is called "Worn-out Land." The analysis of rich soils shows a good supply, and poor land a deficiency.

The inorganic matter abstracted from the soil by the growth of different crops is the same, varying only in proportion; it is therefore evident, that if we supply to the soil a sufficient quantity of each material thus abstracted, we restore its fertility.

The correctness of the above has been fully sustained by the use of the *Fertilizer*, the last season. It has been used on poor land, and twenty-five to twenty-eight bushels of wheat obtained, with a superior crop of clover. As a top-dressing on wheat, eight bushels additional yield has been realized. On the spring crops of corn, oats and clover, the yield has been doubled. It has been used on the same field (as an experiment) with the best Peruvian Guano, both on corn and oats, and the yield has resulted in favor of the *Fertilizer*. The most respectable reference can be given of its value and effects on poor lands.

This article having been used with such favorable results, the manufacturer now offers it to agriculturists, with the full confidence that it will largely repay for the outlay, and that it is the cheapest manure they can use.

On very poor land, two barrels to the acre should be applied; on that in better condition, one and a half barrels. It is calculated, in using two barrels, you supply to the soil sufficient salts for a rotation. As a top-dressing, one barrel put on after a rain, or when the land is wet, and in all cases near the surface and not ploughed in, broad-cast and harrowed when practicable. The Ammonia in this preparation is a Sulphate and therefore not volatile as in Guano; the Bi-Phosphates and Sulphates being soluble, the rain dissolves them, and they thus saturate the soil with prepared food, ready for the nourishment of the plant; being rich in Sulphates, they are powerful absorbents of Ammonia from the atmosphere.

One fact peculiar to this compound is that such portion as may not be abstracted from the soil the first crop, remains in the ground until consumed by after vegetation. One barrel of Chappell's Improved Fertilizer contains as much *Phosphate of Lime* as is contained in 300 lbs. *Peruvian Guano*; therefore, by the application of two barrels (400 lbs.) to an acre, the ground is supplied with as much phosphate of lime as if 400 lbs. best *Peruvian Guano* had been used, and the *Fertilizer* is furnished at less than half the cost.

We add a few certificates. We could add others, but this mode of advertising is expensive—these should be sufficient to recommend the *Fertilizer* to the favorable notice of all farmers, desiring to improve their lands.

The following from gentlemen of high standing, testifies to the action of the *Fertilizer*, compared with *Peruvian* and *Patagonian Guano*. (From Com. T. Ap. C. Jones, Washington.)

Near Prospect Hill, Va., April 29, 1852.

P. Stockton Chappell—Dear Sir:—I suppose I am indebted to your kindness for a copy of the Baltimore Sun, of 17th March, containing notice of transfer of "South Baltimore Chemical Works" to you. I should have sooner acknowledged your attention, but was anxious to see a further development of the effects of your *Fertilizer* before I wrote. You may recollect that about a year ago I purchased the first *Fertilizer*, (a ton) with which I experimented with barley and corn, at the time of planting, and on wheat and grass as a top-dressing, all in comparison with *Peruvian* and *Patagonian Guano*, at equal cost. The effect on the barley was decidedly in favor of the *Fertilizer* beyond all question; while upon wheat, corn and grass, the difference was scarcely discernable on the growing crops. The ground on which the barley grew last year was seeded with Florence wheat on the 3d day of October, 1851; the ground was in the finest heart, 200 lbs. of *Peruvian guano* having been ploughed in after fallowing, but before seeding, which was done with Pennock's drill. The last dressing of guano was carefully sown broadcast transversely to the spring dressing of guano, and to the belt of the *Fertilizer*, through the barley, which separated the *Peruvian* and *Patagonian guano*, and the course of the drill crosses obliquely the belt of about sixty feet on which the *Fertilizer* was used about a year ago.

My wheat, like most wheat of the season, is but middling; my land was ploughed very deep, and, although it is high and rolling, the wheat has suffered severely from a redundancy of moisture; nevertheless, the wheat on the part on which the *Fertilizer* was used at the time of sowing the barley, in April, 1851, is not only higher but stronger, has a better color, and is in every respect more promising than the wheat on either side of it, notwithstanding the double dressing of guano to one of the *Fertilizer*. I have also ten acres of corn ground in wheat, on which your *Fertilizer* was used and sown in comparison with *Peruvian guano* and repeated at the time of sowing the wheat; the *Fertilizer* so far holds its own, and should I live to see it, I will give you particulars of the harvest.

The conclusions to which my mind is brought by the foregoing experiments are:—

First—That at an equal cost, with less labor, and far greater convenience in its application, your *Fertilizer* is fully equal to the average quality of *Peruvian guano* when first applied, and much more durable in its effects on after crops.

Secondly—That six hundred pounds (two barrels) of the *Fertilizer*, incorporated with the soil with the harrow before seeding or planting, is better than 300 pounds of *Peruvian guano*, to which the farmer is compelled to add, with very considerable labor, one and a half bushels of gypsum, the cost of which will bring the guano, at the lowest rates, to \$7.50 per barrel, and the *Fertilizer*, at \$6.00.

Difference in favor of *Fertilizer*, \$1.50
Very respectfully, &c.

T. AP. C. JONES.

Bloomfield, Baltimore co., March 23d, 1851.

P. S. Chappell—Dear Sir:—In answer to your note of this date, asking for my experience in the use of your *Fertilizer*, I have but time to say, that two or three years ago I used but two or three barrels by way of experiment. Last year, I used upwards of seventy, and this year I will drop it on every hill of corn that I plant. My experience of its use on corn, in the hill, is most unquestionably and decidedly favorable.

Very respectfully, yours, &c.

RICHARD J. WORTHINGTON.

BALTO. COUNTY, March 23d, 1851.

P. S. Chappell, Esq.—Dear Sir:—I have used your *Fertilizer* in many ways upon both wheat and corn, with great success.

Yours, respectfully, EDW. W. WORTHINGTON.

(From Rev. Dr. Johns, Rector of Christ Church, Baltimore.)

BALTIMORE, July 2, 1851.

To Dr. P. S. Chappell—Dear Sir: I have just returned from a visit to Delaware, where I had an opportunity of observing the effects of your *Agricultural Salts*, in the production of wheat. They were applied to two fields—one of twenty acres—the other of twenty-eight. The former is uniformly good—on the latter, a part has been damaged by the growth of blue grass, but my impression is, the crop, on both, will be one-third greater than it would have been without the fertilizing article. The grain has not yet been threshed out, and consequently the above opinion rests merely on general observation of the crop immediately before harvest, but I am satisfied it will not be found incorrect. I think it very certain you will have several orders for the Salts, from the vicinity referred to.

Very respectfully,

Your friend and ob't serv't,

HENRY V. D. JOHNS.

Dr. Johns purchased, last fall, thirty barrels; as he used it as above on forty-nine acres, not more than 1 1/4 barrels could have been applied to the acre.

I have used "Chappell's *Fertilizer*" upon potatoes with decided benefit, and am now fully satisfied that it is the best and cheapest manure I can use for that crop.

My first trial was alongside of stable and guano manure; the Salts gave me the best and largest potatoes. Where the Salts was used, the land was thin, and on a hill side; I used about 1 1/2 lbs. to the acre in the furrow, with the usual attention. My crop fully came up to my expectations; the potatoes were large, and of superior quality, and the crop fully one-third greater than any of my neighbors, whose land was much richer than the piece of land I used for my potatoes. The same piece of land I have put down in wheat; the furrows can be seen distinctly some distance off—showing that the *Fertilizer* is still acting in the soil.

I shall use the *Fertilizer* this year on my potatoes, being fully satisfied that it is the cheapest and best manure that I can use for that crop. Several of my neighbors intend using the *Fertilizer* this year. I have paid great attention to the cultivation of potatoes for the Baltimore market for many years, and from my experience of two seasons with the *Fertilizer*, can recommend it with confidence upon that crop.

I will add that I sold my potatoes at \$1.06 per bushel; my neighbors sold at 95c—the difference in price owing to the difference in quality. Yours truly, LARKIN YOUNG.

Balto. co., near Harrisonville, March 15.

Extract of letter from Dr. E. CHANDLER.

CHESTER COUNTY, Pa., May 25, 1852.

On the 20th of August, 1850, I applied 150 lbs. of your *Fertilizer* on a fourth of an acre of poor land, that had not been farmed for forty years previous to the application of the *Fertilizer*. I had the ground ploughed in April and strewed over it 10 bushels of lime, and about the same of ashes, and chip dirt from wood yard, harrowed it well with cultivator, and when I put on the Salts I sowed in Turnip Seed, Timothy and Clover and finished off with a broad-cast of Turnips was 70 bushels, that at 25 cents brought \$17.50, and at the rate of \$70 per acre. Last summer (1851) the crop of good hay was 1,400 lbs., or at the rate of 2 1/2 tons per acre, and now (May, 1852) the appearance of the grass on the same is far better than it was last year. Many persons have been to see this small, though satisfactory experiment, and are becoming convinced of the benefits of your *Fertilizer*.

Price—\$3 per barrel, and containing 300 lbs.

Pamphlets containing certificates can be obtained by addressing

P. STOCKTON CHAPPELL.

145 Lombard st. Baltimore.

July 1, 1852.

N. B. To avoid disappointment, farmers desirous of a supply for their Fall Crops should order early.

MANNY'S PATENT ADJUSTABLE REAPING AND MOWING MACHINES.

Manufactured at Waddam's Grove, Stephenson county, Illinois: and for sale by John Young, Harrisburg; Wm. Brady, Mt. Joy; M. P. Dill, Shiremanstown, and David Cockley, Lancaster, Pa.

Warranted to cut all kinds of Grain and Grass; also Flax, Millet, Corn in the field, and to gather Clover, Timothy and Flax Seed.

This machine will cut from ten to fifteen acres per day, with two horses, with one person to tend it when mowing and two persons when reaping. The grain is left on one side, in gables, for binding. The grass is spread uniformly over the ground. By the use of a double-edged sickle, the cutting apparatus is the most perfect—and which is connected by means of a joint so as to adjust itself to uneven ground, and by means of a lever at the driver's seat, it can be raised and lowered instantly and easily when moving along, to cut from one inch up to two feet from the ground. By a peculiar arrangement of the wheels, all side draft against the team is entirely avoided. The construction of the machine is simple, and by its rendered convenient and durable. Price \$135.00, half down, \$130.00 all down.

J. H. MANNY.

READ THE FOLLOWING TESTIMONIALS:

Janesville, Wis., August 17, 1851.

If any one has either grain or grass, and wants to have it cut as it ought to be, he will consult his own interest, by examining Manny's Reaping and Mowing Machine. The simplicity of its construction, with its absence of unnecessary friction, renders it superior to any other machine of the kind I have ever seen.

WM. HOBSON,

Life member of the Royal Agricultural Society, England.

August, 1851.

We, citizens of Belvidere and vicinity, Boone county, Illinois, have minutely observed the operation of Manny's Reaper and Mower. This machine we have seen at work in wheat that was badly lodged, and with a very heavy growth of straw. The work was done perfectly clean, and with ease, for two horses. The same machine we have seen at work at mowing—it cuts the grass close to the ground and smoothly. It works admirably in cutting clover, and has demonstrated itself to our satisfaction, to be a complete labor saving machine.

Powell Haddock, L. T. Lord, H. J. Doolittle, Thomas Clark, L. Hanks, S. S. Stroud, Jerome Harper, B. Hawley, Isaac Stockwell, David Palmer, William Willis, T. T. M. Chamberlin, and many others.

August, 15.

From an acquaintance with Manny's Reaping and Mowing Machine, and with other machines also with the scythe and cradle, we, the undersigned, can truly say, to our best knowledge, Manny's machine is not only unsurpassed, but unequalled for reaping and mowing; cutting grass close to the ground; also reaping grain in a complete manner, not leaving a single head standing, but leaving it all in good shape and even gables for binding.

George Carpenter, Erin, Stephenson co., Ill.; Abram Marcellus, L. B. Fisher, Thomas Rodebaugh, Charles Rust, Waddam's Grove, Stephenson co., Ill.; Ambrose Hill, Jones county, Iowa; John Humphrey, Gaucha, Ohio.

MANNY'S REAPING AND MOWING MACHINE—We witnessed last week one of these Machines in operation, on the Farm of Mr. Francis Foley, near this village, and were well pleased with the manner in which it performed. Though some of the grain was badly lodged, the machine done its work with admirable despatch and neatness—cutting the grain clean and leaving it in perfect gables, so as to cause no difficulty in binding. The advantages of this machine over all others heretofore in use, consists in its perfect adaptation to uneven ground—the convenient manner of elevating and depressing while moving along, cutting the grain at any height—a most admirable method of obviating all side draft, and the easy manner of changing from reaping to mowing; all the change necessary being merely to remove the platform on which the grain falls.—*Freepress Journal*, August, 1851.

Lewistown, Union co., Pa.

Mr. J. H. Manny:—Your machines here fully answer the purpose; far surpassing McCormick's, Hussey's, and all others I have seen or heard of.

CYRUS DRIESBACH.

TO FARMERS—SALINE FERTILIZER.

This preparation is designed to furnish the soil the various mineral or inorganic materials abstracted from it by plants in the process of vegetation.

It contains a large proportion of the salts of Potash, Soda and Ammonia, combined with Bi-Phosphate of Lime, Animal Charcoal, and other fertilizing matter; the whole forming a highly concentrated manure.

In thus offering a new article to the attention of farmers, the relative value of which remains to be tested by experience, it is desired not to venture upon any assertions respecting it, calculated to excite expectations, which perhaps might not be realized; knowing, however, that the principal constituents of this compound have been proved to be highly valuable separately, it is confidently believed that their combination in proper proportions in the "Saline Fertilizer" will form an excellent manure.

DIRECTIONS FOR USE.

The *Fertilizer* should be applied at the rate of two barrels to the acre, and spread broad-cast on the surface.

If, on opening the barrels, the salts should be found adhering together in lumps, they should be broken, say with the back of a

shovel, upon a floor or smooth surface, and if convenient, a little good dry mould may be added, and well mixed before spreading.

For Wheat or rye, one barrel per acre may be used before sowing, and lightly harrowed in, and the other applied as a top dressing early in the spring, at the commencement of the first thaw.

Upon Grass it should be sown broad-cast, and, if possible, when the ground is wet, or when there is a probability of rain, to dissolve the fertilizing salts; generally late in the fall or early in the spring, will be found to answer best.

Upon Corn, it would perhaps be advisable to apply one barrel in the hill, and one broad-cast.

If added to the manure or compost pile, the *Fertilizer* will doubtless increase greatly the efficacy of the mixture.

The experience of agriculturists will probably suggest other modes of employing it, as soon as they become satisfied of its utility. It should not, however, in any case, be mixed with quick-lime which will cause a loss of Ammonia, nor should it be buried deeply in the soil.

Price, \$2.50 per barrel.

Manufactured and for sale by

CARTER & SCATTERGOOD,

Office, 84 Arch st., Philadelphia.

June, 1852)

PUMPS, FIRE ENGINES, CAST IRON FOUNTAINS, &c., &c.

The subscriber manufactures Double-acting Lift and Force Pumps, (perpendicular and horizontal,) of any size or capacity, which from their simple construction are well calculated for Factories, Mines, Railway Water Stations, Tanneries, Breweries, Irrigation, Hydropathic establishments, or any other situation where water is required.

VILLAGE AND FACTORY FIRE ENGINES. Having a double-acting force pump. They are light, easily handled and worked by few men.

Cistern and Well Pumps, for in or out doors.

Garden Engines, with a small size double acting lift and force pump. Arranged with or without suction. They are so adjusted that one person can wheel them from place to place, and are well calculated for agricultural and horticultural purposes.

Ornamental cast-iron Fountains, of various styles and prices. Copper Rivetted Hose of all sizes, Hose Couplings, Stop cocks, Lead and cast-iron pipes, &c.

I am now ready to receive orders and build Steam Engines from 3 to 15 horse power, portable or stationary, horizontal or perpendicular. I shall build them in as a simple a style as possible, combined with strength and sure of getting at every part, and adapted for any purpose required. When an engine is required for raising water of any amount, I can adjust the pumps in a compact form easily got at, and disconnected from the engine, when not required for pumping. In many situations steam is the most profitable mode of raising water, as the engine can be used for other purposes to advantage.

Also prepared to receive orders or give information upon Lathes, Planers, Presses, Shafting, Pulleys, and machinist tools in general, from the firm of Messrs O. Snow & Co., Meriden, Conn.

Any communications by mail will have immediate attention.

G. B. FARNAM, 34 Cliff st., near Fulton, N. Y.

SHANGHAES!

THE subscribers take this method of informing the citizens of Lancaster and vicinity that they have on hand and for sale a large and beautiful stock of Shanghai fowls, the superiority and good qualities of which cannot be surpassed by any in the country. Since the first importation of these fowls from Shanghai, China, they have become very generally known, particularly in the New England States, and are eagerly sought after for their general good qualities, good laying properties and early maturity, which render them far superior to any other fowl in America.

These fowls can be seen at G. W. Arnold's, in South Duke st., opposite the public schools, or by calling on T. B. Gould, at Cooper's hotel.

T. B. GOULD.

G. W. ARNOLD.

J. & D. FELLEBAUM. Manufacturers of all kinds of Steam Engines and Boilers, Slide and Hand Lathes, Mill and Press Screws of all sizes, &c. West Chestnut st., Lancaster, Pa.

We also furnish castings of the best materials, and at the most reasonable prices. Having had fifteen years practical experience in the manufacture of various kinds of machinery on iron work, we are able to warrant our work to give satisfaction to all who may favor us with their patronage. [June, 1852.]

GUANO WARE HOUSE.

No. 54 South Wharves, Below Walnut Street. Peruvian and Patagonia Guano, for sale in large or small quantities, in barrels and bags, on reasonable terms.

JOSEPH L. JONES.

No. 55, South Wharves, Philadelphia.

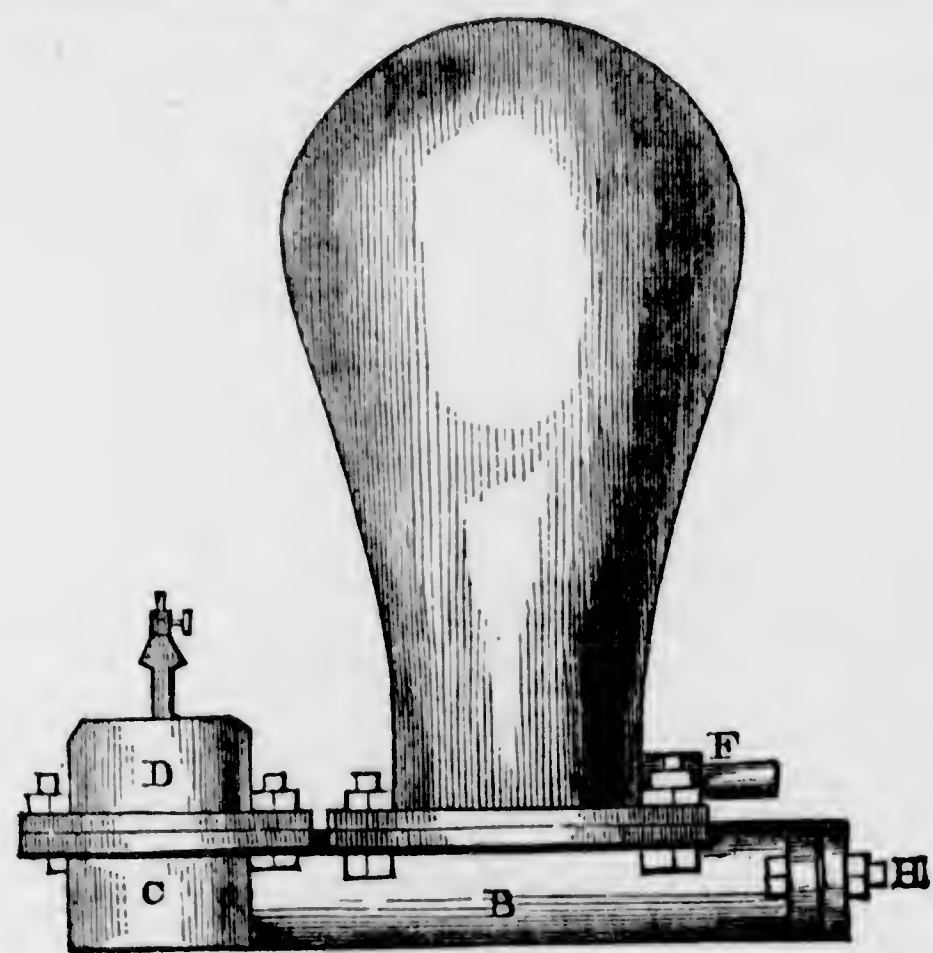
SHANGHAE & COCHIN CHINA FOWLS

For Sale.

The subscriber has on hand a number of young Cochin China & Shanghai Fowls of the latest importation, which he will dispose of at fair prices on post paid application, addressed to

PHILIP HUNT,

West Phila., Chesnut st., 2nd door West of Pub. School House



A. an air chamber—B. body of ram—C. valve chambers—D. valve—E. coupling for delivery pipe—F. coupling for driving pipe.
J. B. CHICHESTER.

NO. 23, SOUTH EIGHTH STREET, PHILADELPHIA.
AGENT for Birkinbines Patent Improved Hydraulic Ram, Force Pumps, Street Stops, Fire Plugs, and Hydraulic Machinery in general.

The superiority of these Rams over all others is the great amount of water thrown to that wasted, the large size they can be constructed, the durability of them, as well as the small amount of attention and repairs they require—many running at present for 4 and 5 years, without any repair. At the present time there are in the United States, Cuba, Mexico and South America, about 2000 in successful operation.

The town of Naples in the State of New York is supplied with water by one of these Rams, throwing 20,000 gallons a day. Many more could be mentioned if space would permit.

Persons wishing Rams sent to them by measuring the amount of water their brook or spring affords, per minute, the head, and fall they can procure, the elevation to be overcome, and distance to be conveyed, can have the proper Ram and Pipe sent them, with directions for putting up.

The expense, in most cases, is smaller than a well and pump.—Letters post-paid, will meet with prompt attention. When desired an experienced person will be sent to put them at a small additional expense. Lead and Iron Pipe for sale. These Rams are warranted in every respect. (Jan. 1852.)

FRUIT AND ORNAMENTAL TREES FOR SALE.

50,000 Peach Trees of one and two years growth, from the bud; 40,000 Apples; 5,000 Cherries; 5,000 Dwarf Pears, each containing all the most esteemed varieties, and of large size. Also, Quinces, Plums, Nectarines, Apricots, Almonds, Grapes, Raspberries, Gooseberries, Currants, Strawberries, &c., &c. 50,000 Silver and Ash-leaved Maple Seedlings of one years growth; 50,000 Apple Seedlings. The above will be sold on the most reasonable terms. Persons residing at the south and west should send their orders early. Catalogues with prices annexed will be sent to all applicants. (Jan. 1852.)

ISAAC PULLEN, Highstown, Mercer Co. N. Jersey.

COTTAGE FURNITURE.

WARWICK & Co., are constantly manufacturing new and appropriate designs of enameled, painted and Cottage Furniture, of warranted materials and workmanship. Suits of Chamber Furniture consisting of DRESSING BUREAU, BEDSTEAD, WASHSTAND, TOILET TABLE, and FOUR CANE SEAT CHAIRS, as low as \$30 per suit, and upward to \$100, gotten up in the most superb style.

Those who are about furnishing hotels, cottages, or city residences, should call and see this style of furniture, which for cheapness, durability and elegance is far preferable to the old heavy kinds of mahogany, &c.

Orders from all parts of the country promptly attended to and carefully packed. WARWICK & CO., Ware-rooms, No. 4 and 6, South Seventh st., between Chestnut & Market streets, Philadelphia. sept.-gm

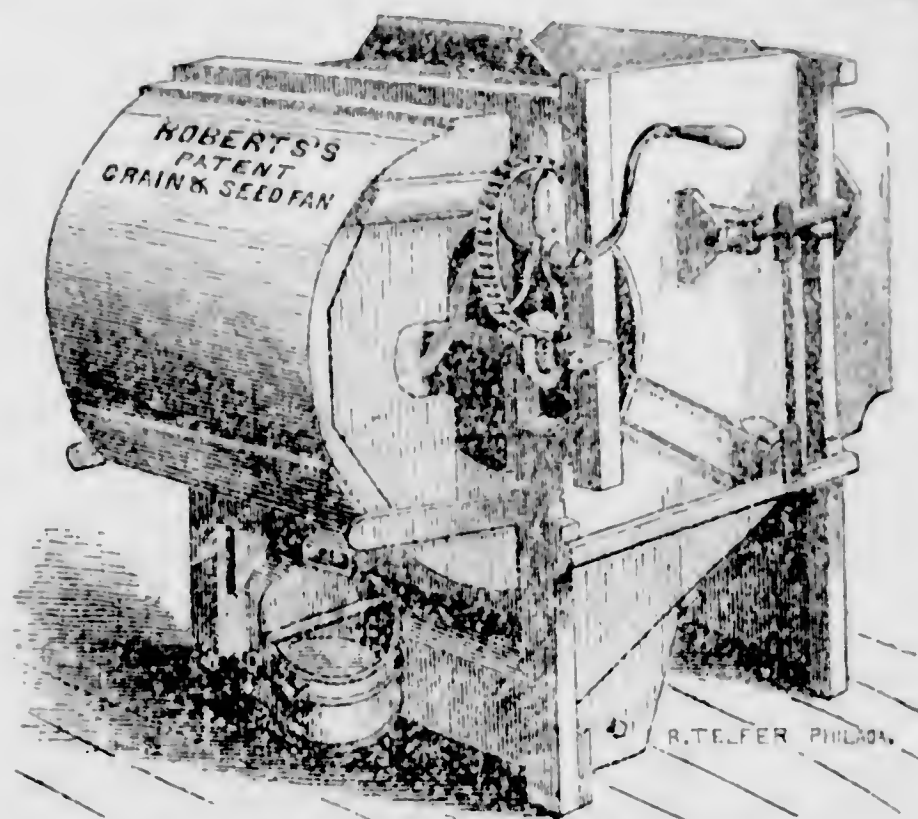
HENRY A. DREER'S

SEED AND HORTICULTURAL WAREHOUSE,

No. 59, Chesnut st., near 3d, Philadelphia.

Constantly on hand a large and well selected assortment of Garden, Field, Grass and Garden Seeds, Fruit Trees, Grape Vines, Roses, &c.

Horticultural Implements in great variety. Catalogues forwarded on post paid application. (sep.-t



IMPORTANT TO FARMERS! JESSE ROBERT'S PATENT UNITED STATES GRAIN AND SEED FAN. TO WHICH WAS AWARDED THE FIRST PREMIUM

At the Pennsylvania Agricultural Fair, after a trial the fairness of which could not be disputed. These Fans, the inventor confidently asserts, are the only ones now in use entirely adequate to the wants of the farmer. The object of the inventor was not directed alone, to the purpose of cleaning grain, but of cleaning it and saving at the same time the farmer the trouble of gathering it from the floor, thus not only avoiding labor, but keeping the grain from the dirt on the floor. In addition to this, these Fans possess greater advantages than those constructed upon the old plan.—These advantages are as follows:

First. The arrangement is such, that a quick shake can be obtained by turning slowly, thus securing when desired, a less quantity of for small seeds.

Second. When necessary a slow shake can be secured, by rapid turning. This is of immense advantage, as it adapts the fan, to the cleaning of all kinds of seeds.

Third. A new method of adjusting the riddles and screws. This gives the operator the advantage of placing them in any position best adapted to accomplish the purposes of a grain Fan. Every riddle and screen has a separate adjustment, so that each one can be fixed at any angle without the necessity of taking them out.

Fourth. The grain, instead of falling on the floor, as is usually the case, is discharged, by means of a small trough, into the half bushel, or other measure that may be placed under it. By this arrangement the grain is all measured, by the time it is cleaned, thus saving not only labor, but time, and consequently expense, as well as keeping the grain from contact with the dust and dirt on the floor. For this reason, the fan, can be put in operation anywhere, with as little trouble as the common fans can be used in a barn floor.

Fifth. The simplicity of their constructions renders them less liable to get out of repair than other mills.

For the above reasons, we confidently recommend our Fans to public patronage. Privileges to manufacture will be granted on reasonable terms. Satisfactory information can be promptly had by addressing post paid, the subscriber at Norristown, Montgomery co., Pa. (Jan. 1852.)

JESSE ROBERTS.

Norristown, December, 1, 1851

Life Insurance for Horses, &c.

THE American Live Stock Insurance Company, (Stockholders individually Liable) for the Insurance of Horses, Mules, Pigs, Bulls, Sheep, Cattle, &c., against Fire, Water, Accidents and Disease. Also, upon Stock driven to Eastern markets, or transported South.

JOHN H. FRICK.

General Agent for Pennsylvania, Philadelphia.

REFERENCES:

Wood, Abbott & Co., }
Traut, Brother & Co., } Philadelphia.
Coates & Brown, }

Agents:

JOHN ZIMMERMAN, Lancaster Pa.
CHARLES F. FRICK, Reading, Pa.
SAMUEL H. TAYLOR, Manahunk, Pa.
Dr. JOHN G. SCOVERS, Veterinary Surgeon,
Examiner for Lancaster County.
May, 1851)

COCHIN CHINA FOWLS FOR SALE.

THE subscriber offers for sale a few pairs of his fine stock of COCHIN CHINA FOWLS, of his own importation, warranted pure blood and true to their name. Orders for the same, post-paid, addressed to the subscriber, will receive due attention. (April, 1852—2m)

CHARLES SAMPSON, West Roxbury, Mass.



VOL. 2.

LANCASTER, PA., AUGUST, 1852.

NO. 5.

THE FARM JOURNAL.

S. S. HALDEMAN, }
A. M. SPANGLER, } EDITORS.

Landreth's Seed Farm.

The following account of Landreth's celebrated seed farm, will prove interesting to our readers. We copy it from that excellent paper the *Germantown Telegraph*, than which no other has done more for the cause of agriculture. The *Telegraph* was, we believe, the first newspaper in Pennsylvania, in which an agricultural department was introduced, and its spirited and enterprising editor deserves the thanks of the farming community for this commendable step.

It will be seen that the account of Mr. Landreth's farm is from the minutes of the Farmers' Club, an association composed of about a dozen intelligent gentlemen of Philadelphia county, who meet alternately at the respective farms of each, and spend a day in the examination of the crops, mode of culture, &c. as well as interesting discussions on subjects connected with agricultural pursuits. We shall take occasion hereafter to publish portions at least of their proceedings for the benefit of our readers, at the same time remarking that the establishment of such clubs in every township in the State, would prove not only a matter of interest to all concerned, but a source of great value to the cause of agriculture generally:

The Club met at Bloomdale, the residence of D. LANDRETH, Esq., on the 18th of June. As we previously, in a report of a Club meeting held at Bloomdale, about a year since, described somewhat in detail, this beautiful, extensive, and interesting estate, we shall only enumerate some striking features in the system, and the general modus operandi pursued by Mr. L. It is proper however to state, that Bloomdale is situated about two miles above Bristol, on the Delaware river, and consists of about two hundred

and fifty acres of fine land, devoted exclusively to the culture of Garden Seeds. The quantity produced is immense, and the quality inferior to none supplied from any other source.

Mr. L.'s customers reside principally south and west of New York, extending to the Rio Grande and the shores of the Pacific. In no important town, indeed in scarcely a hamlet within that vast area, are they unknown, and it has been computed that in nearly three hundred thousand families in the U. S. "Landreth's Garden Seeds" are household words, while from his exportations to the West Indies, South America and British Possessions in Asia, they are widely known abroad.

Mr. L. does not profess to raise all the seeds he vends, but gives his personal attention to those varieties that require greater care, employing others in this country and in Europe to produce those demanding less supervision. This system was established by the father of Mr. L. many years since, and has been continued with the fullest success and satisfaction to both vender and purchaser.

He informed the club that his expenses for manure had not been so great as usual for the current year. The land which had suffered much under the "skinning" system, prior to Mr. L. coming into possession, is now rapidly regaining its natural fertility, and will in future require a less copious supply of the fertilizers, though, as Mr. L. informed us, he will continue to apply manure always with the primary crops.

The whole plantation, large as it is, annually receives a dressing with manure, a portion of which applied this spring, was \$500 worth of Peruvian guano—principally on the bean crops; and he thinks that the guano is admirably adapted to the Brassica tribe, including turnips, cabbages, ruta baga, radish and other cuciform plants.

He informed us, however, that his main reliance was on street dirt from the city, which is composted

with stable manure from the same source and the produce of his barn-yard.

The live stock of the farm consists of eight horses for farm work, three mules, one pair of working oxen, and two cows. He purchases his butter, as he finds it less costly than making it.

Among other striking improvements at Bloomsdale since the meeting of the Club there in '51, we noticed a large, symmetrical building which, as we are informed, is intended as a seed drying house, for which it appeared admirably adapted; also a double cottage for workmen, seven families of whom reside on the place, and with whom the single laborers board. Beside these several other dwellings and drying houses have been erected within a few years—the roofs of which as well as that recently put on the main barn, (which is perhaps one of the largest in the country) are all of slate. They form an excellent roof, give the building an improved appearance, and, as we were informed, and as we believe, it is the cheapest roof in the end. There is an unusual degree of ingenuity and taste displayed in the construction, particularly the internal arrangement, as well as in the relative position and convenience of all the buildings. They are painted with mineral paint, applied and contrasted with good taste. We were particularly struck with the great care that had been taken and expense incurred to prevent a possibility of the various small seeds being mixed. The same care and attention is also given in their production—the extent and variety of which, would seem to make it almost impracticable.

That our readers may form some idea of the complexity, and extent of the system there practiced, we have collected a catalogue of some of the principle crops and the era of each, which we annex—omitting miscellaneous minor crops.

Quantity of Land on each of the various Crops, &c., at Bloomsdale, for 1852.

Beets,	5½ acres.	Salsafy,	2 acres,
Beans, (dwarf)	22 "	Spinach,	2½ "
Pole, do	5 "	Squashes,	8 "
Cabbage,	16 "	Turnips,	8 "
Carrots,	1½ "	Ruta бага,	2 "
Cucumbers,	12 "	Corn,	10 "
Lettuce,	10 "	Potatoes,	4 "
Parsley,	3 "	Oats,	4 "
Parnips,	4 "	Grass,	36 "
Peas (ex. early)	35 "	Pleasure grounds,	8 "
Radishes,	9 "		

By Mr. L's system the bean crop follows the pea, and other crops succeed those planted in the spring—thus securing two crops in the same year from the same land, the advantages of which it is evident, must be very great in many respects.

We were informed that bulb seed generally, one year old, will grow better than new, but that they will be about three days later sprouting than new

seed; also that all the root crops except the beet and carrot may stand out as they grow, if designed for seed the next year.

There is a great length of wagon road between the several crops on the place, all which was in beautiful order—the weeds being destroyed, the ruts filled, and the surface neatly graded and levelled by passing over them Wilkinson's Patent Rut Scraper.

The lawn, which had been a long time in grass, and which appeared at the time of our previous meeting to be running out, was now vigorous and verdant—it having been resuscitated by re-seeding and the application of guano.

There was little time for the discussion of any other matters than those alike numerous and interesting, that presented themselves on all sides of us as we walked and rode over Bloomsdale farm. There was however an interchange of opinion between some of the members of the Club on *harvesting and marketing the small cereals.*

The Yellows in Peach Trees.

The prevalence of this disease in many parts of the United States, and the contrariety of opinion in reference to its origin, contagiousness and remedy, all serve to render it a subject of interest to the Horticulturist. Although various theories in regard to it have been advanced, no single one seems yet to have claimed more than a mere passing notice. It is not our intention to lay down any particular theory in relation to it, but simply to call attention to some facts, which have fallen under our observation, and which may prove useful hints, upon which more experienced horticulturists may improve. And we here take occasion to say that we do not believe the disease to be either contagious or incurable.

With reference to its contagiousness, we shall feel bound to believe it, so soon as any thing analogous to it in the vegetable kingdom is discovered; but until then, we prefer being classed with the skeptics, waiting patiently till more minute investigation and research shall satisfactorily determine the true cause of it.

Neither do we believe the disease to be incurable; and for the following reasons:

Last season we took possession of a small orchard which contained a number of peach trees of the choicest varieties. The owner, a gentleman of intelligence, and also a skilful horticulturist, requested as a favor; that a dozen or more of the trees which presented unmistakable evidences of the yellows, might be removed, root and branch. Deference to his superior judgment induced us to comply in part with his request. Half a dozen trees were removed, and the balance reserved for experiments. We can not better describe their condition at the time we took charge of them, than by quoting from "Downing's

Fruits and Fruit Trees of America." He says the infallible symptoms of the Yellows are the following:

1. The production upon the branches of very slender wiry shoots, a few inches long and bearing starved, diminutive leaves. These leaves are not protruded from the extremities, but from latent buds on the main portion of the stem and large branches.—The leaves are very narrow and small, quite distinct from those of the natural size, and are either pale, yellow, or destitute of color.

2. The premature ripening of the fruit. This takes place from two to four weeks earlier than the proper season. The first season of the disease it grows to nearly its natural size; the following season it is not more than half or a fourth of that size; but is always marked externally, (whatever be the natural color) with specks and large spots of purplish red. Internally, the flesh is more deeply colored, especially around the stone, than in the natural state."

Several of the reserved trees being of the choicest varieties, we concluded they were worth an effort to save them. Our first step was to cut away the branches that appeared most affected. We then headed in the remainder, pretty severely, after which cinders from the locomotives on the Columbia Rail Road were applied to a depth of six inches, the dressing extending as far as the extremities of the branches. The cinders were then turned under full spade deep. We saw no immediate improvement, and were led to fear that our trouble had been for naught. This spring, however, we were most agreeably surprised to find every tree thus treated, putting forth leaves as vigorously as any of the other trees in the orchard; and at the present time, July 18, they are all apparently, as vigorous and healthy as ever they were. The fruit upon them gives no indication of premature ripening, while the new growth of wood exceeds twelve inches. As coal is used to a certain extent upon the locomotives from which the cinders were procured, that fact should not be forgotten. Besides which a considerable quantity of ashes was mixed with them.

In stating these facts, we have no desire to be understood as asserting locomotive coal cinders to be a *specific* for the yellows; but we do think that it furnishes conclusive evidence, that the disease is not wholly without a remedy. It offers encouragement to renewed experiments, and may possibly lead to results which have long been sought for.

AGE OF SHEEP.—The age of sheep may be known by the front teeth. They are eight in number, and appear the first year, all of a size. In the second year the two middle ones fall out, and their place is supplied by two large ones. In the third year a small tooth on each side. In the fourth year the large teeth are six in number. In the fifth year the whole front teeth are large. In the sixth year the whole begin to get worn.

Original Communications.

Lunar Influence.

MR. EDITOR: Mrs. Pierson, has, I perceive, condescended to notice my short paper, on Lunar Influence, which appeared in your May number. After a careful reading of her reply, I hardly know whether a continuance in the discussion on this question, with that excellent lady, will be of any benefit in its further elucidation, because of the exceeding caustic remarks she was pleased to make, in reference to those, (myself included,) who are not implicit believers in "the divine art of Astrology;" and the utter contempt she entertains for the light of "modern science." On the first, she remarks: "It would appear that Medicus, in common with his kindred blasphemers of the moon, do not know that the divine doctrine of Astrology, including the nodic zodiacal influence of the moon, in conjunction with the planets, is a veritable science, and not a phantom of darkness, and offspring of superstitious ignorance." It is true, Medicus does not believe Astrology to be a *divine* doctrine, any more than the modern humbug of "Spiritual Knocking."

Concerning modern science which we suppose means modern scientific discoveries, we are thus addressed. "In this, as in every other instance, modern science bears about the same relation to truth, that atheism does to God, and the proud sneers of the one against the subject of its enmity equally with the supercilious ridicule of the other, will perish in contempt, while the great principles which they have impotently assailed, remain glorious and unimpaired forever." Now, sir, although these are severe remarks, yet you will perceive they contain no arguments, either in favor of Astrology, or against modern science; and had they been uttered by a gentleman, I should not hesitate for a moment to make free use of refutation, but, to remove an excrescence. But their author, belongs to that gentle and lovely portion of the community, for whom I entertain the most profound regard—and rather than be ungentle, or discourteous to one of the sex, I will be willing to rest under the imputation of being a "blasphemer of the moon," and an "Astrological Athiest" all my life.

First I am asked to separate the *influence* from the *light* of the moon. Most are aware that the moon, as a body, like our globe, possesses attractive power, and in proportion as She approaches the Earth, so that influence increases,—hence, when she is in her *perigee*, the tides rise the highest, and the reverse, when she is in her *apogee*. Now, this attractive influence is easily discovered to be quite distinct from the light reflected from the face of the moon upon our globe; this light coming from the great fountain of light—the Sun. And just as the bright

surface of steel on glass, that reflects light, is not the light, so, the moon, is not the light she reflects.

We are next directed to the cases of several unfortunate beings, who in clear day light, cut their throats, or jumped into wells, but who are now gone,

"To that eternal shore,

Where moons shall wax, and wane no more."

And all these dire calamities happened, it seems, at different changes of the moon! To these statements we make no objections, they bring all arguments on our side of the question. Next, we are told, "every 'old woman' knows, that nature has certain periods rounded by a period of about twenty-nine days." Medicus, we believe knows this too, who begs to refer L. J. P. to Prof. R. Gaoch's work on this delicate subject. (Page 15.) Next in order we are directed to Prof. Cannings' article—we have read it and find it does not in *direct* terms claim lunar influence, but believes that certain atmospheric variations are distinguished by Physiological and Pathological changes. For which he observes, "We can reasonably infer then, that the moon has an influence on vital actions." This whole matter, we see, rests on and is resolved into a simple supposition. The latter portion of Mrs. Pierson's article being the result of her own experience, we will not attempt to controvert it. But promise, should we ever make similar experiments, and find them caused by lunar influence, we will without delay apprise her of the result.

MEDICUS.

Philadelphia, July 9th, 1852.

An Experiment for Believers as well as Skeptics.

The belief obtains to some extent in this country, that certain operations in farming are more advantageously done when the moon is in the ascending node, (or according to some almanacs when it points up,) and that others should be done when the moon is in the descending node, or points down. Some believing that a post planted when the moon points up, will have some tendency to draw up and will not stand well, and that this influence extends to the time of sowing seed and putting out manure, &c.—I observe in the Farm Journal for July, that Lydia Jane Pierson proposes a method to determine the truth of it, viz: By laying a board on the grass when the moon is in the descending node, and another when it is in the ascending node. The first of which she says will settle close to the earth, whilst the other will not. This mode of proving the theory of that kind of lunar influence, if carried out to sufficient extent, seems to be fair, and what can be tried so easily should not remain doubtful. If the theory is true, we are entitled to its advantages; if it is not true, it should cease to interfere with our operations. I therefore propose to those who have time and inclination, to make experiments for the extension of her

plan as follows, in order to render it more conclusive, viz: Provide 90 small pieces of board of equal size, say 3 inches square, or larger; select a piece of grass ground, on which lay one piece each day till all are laid, taking care that they shall not be disturbed, or moved, till one month after the last piece has been laid. Mow a space each week sufficient for laying the pieces to be laid that week. If the theory is true, it will appear at the end of the time by each series of 14 or 15, differing from a like number immediately preceding and following, throughout the whole number, one part lying as if attracted to the ground, and the other part as if repelled from it. If no such appearance presents, the theory may, as regards that kind of action, be presumed to be false. There is no doubt that matters thrown on the ground, sometimes do adhere more closely to the earth than at other times, when circumstances do not seem to be different, which I have supposed might be owing to the moist or dry state of the ground. Attention should therefore be given to the amount of rain, and time of falling, and to all other matters that may have influence.

Again. She says that briars, if cut down when the moon is old, and in the sign of the heart, if they do not die at once they will never thrive but dwindle away and perish. I believe that common black berry briars are in such state in August that they may be more effected by cutting off then, than at other times of the year. On the 14th of August, of the present year, the moon is in the last day of the last quarter, and in the sign of the heart. I therefore propose to experimenters, who have briars to cut, that they cut a portion of them on the afternoon of the 14th, and another portion on the 22nd, when the moon will be about the first quarter, for the purpose of testing the lunar influence in that matter. I think these experiments worth the attention of those that believe, and those that do not believe in these kinds of lunar influence, and I hope that they may be tried by many, and the results communicated to the Editor of the Farm Journal, who I do not doubt will be willing to give a short abstract of the result. I hope moreover, that all will be made under equal circumstances, as nearly as may be, and that we shall arrive at the same conclusion.

Plymouth, Mont. Co., 7th Mo., 1852.

[We commend the above to the attention of those of our readers who feel interested in determining the question whether the moon does or does not exercise an influence upon vegetation, fence making, &c.—For the following reasons we conceive the settling of this question to be important. If the moon does not exert the influence attributed to her, it is a high time that the thousands of farmers whose time is put in at harvest, and permitted to remain till fall

fruits, setting fences, posts, &c., are regulated entirely by her, should be relieved from the inconvenience of postponing or hastening these various operations of the farm in order that they may be performed in what is termed the "right sign." On the other hand; if repeated experiments conclusively show, that an influence is exerted by the moon in the various directions attributed to her, it is well that those who are skeptics should have their infidelity removed, and avail themselves of the advantages which accrue to those who study the "signs" and regulate their various operations accordingly.—Ed.]

Another Remedy for the Grain Weevil in Barns.

MR. EDITOR.—In looking over the July No. of the Farm Journal, I noticed an inquiry from Mr. A. Owen, of Huntingdon county, Pa., in regard to the destruction of the wheat weevil.

Although Mr. Owen is rather late in making an inquiry to save the present crop, I shall, however, give him my opinion and experience in the destruction of that annoying foe.

My barn for a number of years had been infested with weevils, and having sustained like Mr. Owen's neighbor, a considerable loss from their ravages, I determined to wage an exterminating warfare against the enemy. To accomplish this, I tried different remedies, but without effect. I finally concluded to starve them as the dernier resort. Accordingly, two years ago I stacked all my wheat and rye out, put nothing into the barn but hay and oats, and the cure was effectual; for since that time, there is not a weevil to be found. I would further state that before putting the hay in the barn, it should be swept clean, in order to disturb the weevils as much as possible.

There are also other remedies recommended by different writers, such as strewing portly branches between the layers while mowing the grain, and white-washing the inside of barns, or mixing lime and salt in threshed grain, &c., but my own experience proves to me there is nothing like starving them. Yours, &c.

SAMUEL MUMMA.

Locust Grove Farm, Dauphin Co., Pa.

Another Remedy for the Grain Weevil.

MR. EDITOR.—Observing an inquiry in the last No. of your valuable "Journal," in respect to the barn weevil;—whether there is any means of destroying them? I answer, there is. The only and effectual way is, by *starvation*. If there is no wheat, barley, corn, or other substance on which they can feed, placed in the barn for one year, they will all perish. The wheat can be stacked, and threshed in the winter, when the weevil becomes dormant and is not able to feed. The loss by stacking is not so great as the injury done by the weevil, if the grain is put in at harvest, and permitted to remain till fall

or winter. They will not feed on oats. They were very annoying in my barn, and seeing it stated in an agricultural paper, that by sprinkling salt on the wheat as it was placed in the mow, it would prevent them from eating it. I did so. It was however, eaten, but not so badly, I think, as if the salt had not been put amongst it. However, they will feed on it, and the nuisance was continued. I then adopted the plan of starvation, which was successful.

There are various methods of preventing them from eating it after it is threshed; the best, I believe, is to sprinkle dry slacked lime amongst it, as it is placed in the garner. First sprinkle the bottom and sides with it, then place a layer of wheat about six inches in depth, then a sprinkling of lime, and so on. Before using the wheat it should be run through a fan.

A.

Uwehlen, Chester Co., 1852.

[It will be seen that two of our correspondents, in reply to Mr. Owen's inquiry in our last, have advised the same means for the extermination of the weevil in barns. We present the views of both, as both are gentlemen of intelligence and observation. The ravages of the weevil are becoming so extensive of late as to demand serious attention. The remedy suggested by our correspondents is so simple that the farmer whose grain is destroyed in future, must charge the loss to his own negligence.—Ed.]

Culture of the Tomato.

MR. EDITOR: Although not desirous of being classed with those, who in the language of your correspondent, E. A. Stilling, "appear desirous of seeing their names in print," I still feel inclined to offer a word in reply to his *natural* mode of cultivating the tomato. Strong and early as may be his love for this excellent vegetable, I feel no ways inclined to yield to him the supremacy in this particular; my fondness for them, dating back as many years as his as well as my cultivation of them. Without, however, pretending to discuss these points, I propose merely to convince him that what he calls his *natural* mode of cultivating the tomato, is a most unnatural one. He says, he grows his plants in a cold frame. Now in what particular case has nature ever used the cold frame, except that which the earth finishes for propagating the tomato? Again, when too thickly sown, he "thins them out." When nature sows too thickly, she suffers the penalty of her indiscretion, in the meagre character of her plants. In this particular, E. A. S. has improved somewhat upon the good dame's plan, for which he is entirely entitled to credit. Again, he sets his plants on the sunny side of a tight board fence, close to it, so that "the roots penetrating to the cool moist soil on the northern side of the fence, take up the food necessary for the sustenance of the plant readily and rapidly," a most ex-

cellent plan I admit, but one the precedent of which, I presume, was not found in our respected mother's gardening system. Here, too, we find E. A. S. taking a step in advance of his preceptress. Lastly, he lays brush under them, when too heavy to support themselves, which I think, not only a wide departure from nature's plan, but a decidedly wrong course to be pursued. The tomato plant, so soon as the points touch the ground, begin to take root, at those points in a manner similar, (though not exactly) to the runners of the Strawberry. There was evidently a design in this, on the part of nature and that design appears to me to be the strengthening of the plant, in its powers of production. Being of rank growth, as well as a rank produce, it would seem but reasonable, that depriving the plant of the nourishment, which these root joints would afford it, cannot but weaken the size of the plant as well as its fruit producing qualities.

So much for E. A. S's plan, and now for mine which is similar in nearly every respect, except the placing of brush under them. This I never do, for the reasons above given, neither do I pinch off the leaves and side branches, (in this particular also, agreeing with him,) but I do select the best soil I have in my garden, and have always found them to succeed best in such.

P. WATSON, JR.

Lebanon county, Pa.

Honor thy father and thy mother.

In the spirit of this injunction, a work has recently appeared, which illustrates how Pennsylvania Friends of the last generation, while cultivating the soil with industry and success, and training up their children in the way in which they should go, some of them found time to do great good in other respects, and when they went to their rest, left a happy example and a wide extended and blessed influence behind them. It is entitled, *Memoir of Philip and Rachel Price*, and was written by their son Eli K. Price of the Philadelphia bar: a name well known throughout the State, as that of a man of intelligence; of distinguished success in his profession; and who, for years, has had the command of public confidence, with habits as simple and unassuming as those of the Friends he represents. It is addressed to his parents by name, as to spirits still living; and signed with his own name, as in the actual realization of a continued existence beyond the grave, which too many of us forget; and the full belief that our friends still look down upon us from the spirit land and recognize when we address them. It is written throughout in the form of a letter to departed friends:—so far as we are aware, an original form of memorial.

Enclosed are some extracts, upon matters connected with the objects of the Farm Journal, which will,

probably, be read with interest, by many of your subscribers.

* * *

HISTORY OF A CHESTER COUNTY FARM.

In 1791, Philip Price bought the plantation lying between West Chester and the Brandywine. At this time, like much of the surrounding country, it was in a low condition, exhausted, washed into gullies and unclothed with verdure; and partly overgrown with poverty grass, briars, and alder bushes. Writing to Judge Peters in 1796, P. Price said—"In the spring of the year 1792, I fenced off a piece of about four acres (to fold his cattle), being a part of a large field that was much reduced, washed into deep gullies in many parts, and which had been totally neglected for many years. The appearance was so disagreeable that I put no value on it when I purchased the place, though the field contained fifty acres." *Mem. Phil. Ag. Soc'y*, 2 vol. The highest efforts of agricultural improvement in this neighborhood at the time of the purchase were those of a few meadows under artificial irrigation. Philip Price was in communication with Judge Peters, Dr. Mease, and others, who had begun to take a lively interest in the advancement of agriculture, and his acquaintance and observation extended to the best practical farmers and farms in the county. He commenced on his newly purchased place a course of improvement in manuring, the sowing of red clover and other grasses, and in the rotation of crops, that rapidly took effect, and rewarded his skill and labor. Lime was obtained from the "Valley," gypsum or plaster from tide water, and freely administered; the stable manure was protected by shelter, and applied without loss of strength before the autumnal seeding of wheat. Judge Peters, in publishing the communications of Philip Price and others, on the advantages of plaster of paris, says—"I have heard of none who have been more remarkably successful in the plaster system than Mr. West and Mr. Price. They have brought old worn-out lands to an astonishing degree of fertility and profit by combining the plaster with other manures." lb. 34.

ROTATION OF CROPS.

The best rotation of crops, that resulted from experience, was to break up the sod late in the fall, or early in the spring, and to plant the field with Indian corn, pumpkins, and potatoes—the former intermixed the latter manured; the second year to sow with barley or oats, and after the removal of this crop, to plough the stubble, manure and sow with wheat in the fall, upon which was sown the clover and timothy seed, to come into use for pasture after the wheat harvest of the next summer, and to be mowed and pastured with the use of gypsum for several successive years, until the field came in rotation for a like repetition of crop. This process of careful husbandry transformed the exhausted hills of the Brandywine

into their present fertile and beautiful appearance, and made them a garden spot of the world. And the worthless, old worn-out "fifty acre field," its proprietor lived to see worth more than a hundred dollars an acre, in common with the residue of the plantation. To have been a pioneer in a process so beneficent and of apparently magical results, would be felt as no small honor to those who respire their happiness in the popular favor and applause. To Philip Price it was simply a source of benevolent satisfaction, in contemplating the good he had aided in accomplishing, of which his eye took a wide survey, from the porch of his mansion; but the obligation was not forgotten by his neighbors, in after years, when the members of the Chester County Agricultural Society elected him its first President.

GYPSUM.

The results of the experiments of P. Price in the use of plaster, as communicated in 1796, in answer to the queries of Judge Peters, were, that on a high loamy soil it operated better than on low-lying clay ground; one to one-and-a-half bushels per acre are sufficient, repeated yearly while in clover; the effect is good with or without recent ploughing; is without liability to leave the soil exhausted, as from the effect of a stimulus, where the product is returned in manure; that it is most beneficially applied to Indian corn and red clover,—but usefully to other grasses and grain crops; and may be used advantageously with or without other manuring, and with the most striking effect, if not immediately preceded by other manure. The best time to strew it is at the first harrowing of Indian corn, and on clover, with a small quantity soon after it comes up, to be repeated as soon as vegetation takes place in the spring; this giving a stimulus when most needed. The effect is most visible on poor soil,—eight acres sowed plentifully with it without other manure, in five years become, says P. Price, "worth ten times what it was before I plastered it, the face of the soil appearing to be entirely changed, and is admired by all who have hitherto known it;" but though now (1852) in a high state of cultivation, the same article is annually used with decided advantage, on the same farm.

DIGNITY OF LABOUR.

A Pennsylvania farmer and his son cultivating their own fields.

The recollections of the writer, though then young, extend back to this period, (1807). He was then and for some years after, in conformity with the practice of making all the children actively useful, assisting in the business of the farm. Though frequently taken from home by the calls of the Society of Friends, meeting the School Committee, &c., yet upon all urgent occasions, and in matters requiring skill and judgment, Philip Price was an important workman on his plantation. With his own hand he sowed the grain,

the grass seeds, and plaster,—struck the furrow for planting and drilling; ploughed and harrowed the corn; pitched the hay and grain sheaves at harvest, with an elasticity of muscle and endurance of fatigue that few could equal. He was a practical farmer of efficient energy, and sound judgment, skilled in the choice and management of stock; and an experienced grazier lately told the writer that he had received from him his first and best lessons in the selection of cattle. He had a capacity to make riches, but he preferred to educate his numerous family; to fulfil the higher duties he believed he owed to his Creator; and to keep the tempting cares and ambition of the world beneath his feet.

MERINO SHEEP.

Anecdote of the war of 1812.

During the second war with England, from 1812 to 1815, when foreign supplies were cut off, our own manufacturers having a monopoly of the home market, Merino sheep came into great request, and attained highly speculative prices. Large flocks then and afterwards ranged the farms of Philip Price, and were good fertilizers of the soil. But with the influx brought by the return of peace, of foreign goods, and the impolitic abandonment by the government of an adequate protection to the capital invested in manufactories, wool and sheep found a sudden depression, and the loss on these aggravated the difficulties of the farming interests, otherwise severely suffering under the fall of prices incident to a return after the war from an inflated paper currency to a specie basis. The large flocks that whitened the hills of Chester county soon disappeared, only to reappear, many years afterwards, on the cheaper lands of the rolling surface of Washington and adjoining counties in Western Pennsylvania. An incident occurred in relation to the produce of the sheep of P. Price, that afforded some amusement at the time. Until then blue had been the standing military colour, and he had his wool manufactured into gray cloth and sent to the store at West Chester thinking it quite secure from military service; but it so happened that the first volunteer company there formed fancied that colour, called themselves the "Chester County Grays," and the writer then a lad in the store, thought himself in good luck to sell the whole stock of Quaker cloth to the members to go to camp. The companies at Marcus Hook were not, however, called to meet the enemy, and the clothing had only served to keep the soldiers warm, a circumstance hardly to be regretted since among them were personal friends, and an uncle of the writer, Joseph H. Brinton, who, though of great wealth, advanced age, and mild manners, believed it to be his duty to turn out as a volunteer private in the defence of his country. He was not bred a Friend, and was undoubtedly actuated by a high sense of patriotic feeling.

FIRST AGRICULTURAL SOCIETY AMONG OUR FARMERS IN THIS STATE.

The Agricultural Society of Chester county was organized early in the year 1820, by the election of Philip Price as President, Dr. William Darlington as Vice President, and Isaac Sharpless as Secretary; and about fifty of its most substantial and worthy farmers were appointed on its ten committees. It was the first society in the State composed chiefly of practical farmers. The objects embraced by its standing committees, evince the intelligence and liberal scope of the minds of the members. They were: 1. On farm buildings, fences, and implements of husbandry; 2. On the veterinary art; 3. On natural history, particularly mineralogy and entomology; 4. Political economy; 5. Domestic animals; 6. Grasses, grains and roots; 7. Manures; 8. Fruit and forest trees; 9. Irrigation and draining; 10. Horticulture; with specifications of the objects and purposes of each committee. An address to the citizens of the county was prepared by Nathan N. Sharpless, recommending its objects, and inviting investigation and contribution of the results of experiment and experience; which states that "it is within the memory of many of us that this county was very poor, but thanks to the worthy founders of our present farming system, our own industry and a beneficent Providence, it has arisen to a degree of prosperity and excellence seldom witnessed in so short a period of time. Most of you know how this has been accomplished. It has been effected by a judicious rotation of crops, by clover and gypsum." To encourage the diffident and unpractised with the pen, the address proceeds—"It would not be expected that all communications, to be beneficial, should be grammatically correct, or in smoothly rounded periods; practical observations and facts, tending in any degree to illustrate the subject, will find as ready acceptance dressed in the plainest language of simplicity, as the more polished sentences of the philosopher or scholar."

A further address, from the pen of another member, William H. Dillingham, will also be found in the columns of the "Village Record," of the same year, enforcing concert of action for the common interest, the diffusion of useful intelligence, and to raise the profession of agriculture in the public estimation. Much of this address would have been forcibly pertinent in favor of the formation of a State Agricultural Society, as lately consummated, at a central point for exhibition, the receipt and diffusion of information, seeds, &c. And reference is made to another great branch of human industry to enforce the argument and afford encouragement to a like vigilance and concentration of power. "In no part of the world are the merchants without their Chamber of Commerce, and to this means, in a great measure, is to be ascribed, not only their high respectabil-

ity as a body, but their great unanimity in public measures, and their weight in almost every government. The moment their interests are touched in any one point, the whole body sympathizes, and all their influence is exerted through the common organ." Chester county has now her Horticultural Hall, and though a later architectural ornament to West Chester than the Chester County Cabinet, the purposes of the Agricultural Society probably suggested the formation of the Cabinet, Horticultural Society, &c. Certain, however, it is, that such naturalists as Dr. Darlington, David Townsend, Joshua Hoopes, and many others, were active in all, and by their industry and zeal, have added to the scientific character of the country, and one of them by his publications has acquired a reputation among European savans.—In giving his learning, and the remains of other naturalists—of Baldwin, Marshall, Collinson and Barram—to the public, he has in the benevolent spirit, and not in that of those whom Buckminster reproaches as the misers of learning, who hoard for themselves alone: "That learning, whatever it be, which lives and dies with the possessor, is more worthless than his wealth, which descends to posterity." If all capable of teaching would thus earnestly devote themselves in some way and to some extent, to instruct mankind, the progress of improvement would be vastly accelerated.

This address was prepared by him as one of the Committee associated with Dr. Darlington and Nathan H. Sharpless.

SHEEP SHEARING AND SACKING WOOL.—This should not be done sooner than the season will admit, as the sheep would be in danger of taking cold. Wool intended to be sent to a distant market, may be put up and pressed in bales after the manner of cotton, or it may be crowded into sacks holding from 200 to 250 pounds. If designed to be shipped on a long voyage, it would be more economical to press it into square bales, as it would then occupy less bulk and consequently effect a saving of freight. But if the interior of the country where the conveniences for baling are not always at hand, sacks may be employed made of 40 inch "ourlaps," or 45 "gunny cloth," 7 and a half feet long. Each of the sacks may be made of a piece of cloth five yards in length, by doubling the ends until they meet, and sewing up the sides with twine.

The mouth of a sack may next be sewed to a strong hoop of wood or iron [diameter 25 inches for the ourlaps and 28 inches for the gunny cloth,] then let down its body through a circular hole, 2 inches less in diameter than the hoop, cut in an upper floor of the building, or of a temporary scaffold erected for the purpose, where it can be let swing clear beneath. One man may then get into the sack, while another hands him the fleeces, which he should place in regular layers, pressing them down in the mean time, with his feet until it is filled. After this the sack may be slightly raised, the hoop disengaged, the mouth of the sack sewed up, and the operation is complete.

Second Annual Exhibition of the Pennsylvania State Agricultural Society.

To the Farmers of Pennsylvania and the Neighboring States

The first Exhibition of the Pennsylvania State Agricultural Society afforded satisfactory evidence that it is not difficult to develop the resources of our State for so interesting an occasion. The exhibition itself, the pleasure we derived from it, and its profitable effects, in the face of the doubts and fears which always hang heavily upon new projects, were beyond our reasonable expectations. Now we know what can be done, and we propose to hold our Second Annual Exhibition at Lancaster, on Wednesday, Thursday and Friday, the 20th, 21st, and 22d of October, 1852, to which we invite all persons everywhere who feel an interest in the subject. We have made arrangements for the most ample accommodations and care of all animals, products and machinery which shall be brought there; and we trust that every Farmer, Horticulturist, Manufacturer, Mechanic and Inventor, will partake with us, and consider himself as engaged in the work of making this Exhibition as great, interesting and profitable as it is our design it should be.

Our Society especially desires to recognise the influence and power that mothers and daughters may exert in promoting our object; and we therefore cordially invite them to our meeting, and solicit the contributions of their taste and industry to give beauty and interest to our Exhibition.

FRED'K WATTS, *President.*

*Officers of the State Agricultural Society.**President.*

FREDERICK WATTS, Carlisle.

Vice Presidents.

PELEG B. SAVERY, Philadelphia.
JOSEPH R. INGERSOLL, "
ALGERNON S. ROBERTS, "
JAMES GOWEN, Germantown.
JOHN KENNEDY, Port Kennedy, Montgomery Co.
WILLIAM STAVELEY, Lahaska, Bucks Co.
ARTHUR McELVAINE, Brandywine Manor, Chester Co.
JACOB FRANTZ, Lancaster.
HENRY SHUBERT, Bethel, Berks Co.
CONRAD SHUBERT, Bethlehem, Northampton Co.
GEORGE W. WOODWARD, Wilkesbarre, Luzerne Co.
WILLIAM JESSUP, Montrose, Susquehanna Co.
JACOB GUNDY, Lewisburg, Union Co.
A. O. HEISTER, Harrisburg, Dauphin Co.
J. S. HALDEMAN, New Cumberland, Cumberland Co.
FINLAW McCOWEN, Bloomfield, Perry Co.
JOHN McWILLIAMS, Colrain Forges, Huntingdon Co.
WILLIAM A. STOKES, Greensburg, Westmoreland Co.
WILLIAM PATTERSON, Cross Creek, Washington Co.
HIRAM HULTZ, Pittsburg, Allegheny Co.
MORRIS LEECH, Clark, Mercer Co.
JAMES MILES, Girard, Erie Co.
DAVID RALSTON, Indiana, Indiana Co.

Corresponding Secretary.

ALFRED L. ELWYN, Philadelphia.

Recording Secretary.

ROBERT C. WALKER, Pittsburg.

Treasurer.

GEORGE H. BECHER, Harrisburg.

Librarian.

LUTHER REILLY, Harrisburg.

Chemist.

CHARLES B. TREGO, Philadelphia.

Additional Members of the Executive Committee.

ISAAC G. McKINLEY, Harrisburg.

DAVID MUMMA, Jr., Portsmouth.

SIMON CAMERON, "

ROBERT McALLISTER, Juniata Co.

JOHN R. RUTHERFORD, "

REGULATIONS OF THE FAIR.

All the members of the Society, whose dues are paid, and all who shall become members previous to or at the Fair, will be furnished with badges, which will admit the person and the ladies of his family to the Exhibition at all times during the continuance of the Fair. Tickets to admit a single person, 25 cents.

All Exhibitors at the Fair must become members of the Society, and have their animals or articles entered at the Business Office before taking them into the enclosure.

All those who intend to compete for the premiums at the Fair should have their animals and articles on the ground, *without fail*, on or before Tuesday, the 19th of October, so that they may be arranged and in readiness for examination by the Judges on Wednesday morning.

This regulation must be strictly adhered to, otherwise the Society will not be responsible for the omission of any animal or article on the lists.

No animals or articles entered for exhibition, can be taken away before the close of the Fair, except by permission of a member of the Executive Committee—and no premium will be paid on animals or articles removed in violation of this rule.

Animals and articles entered for the exhibition will have cards attached with the No. as entered at the business office, and exhibitors should in all cases obtain their cards previous to placing their stock or articles on the show grounds.

All persons who intend to exhibit Horses, Cattle, Sheep or Swine, or who intend to offer Stock for sale, should notify the Secretary of such intention, on or before the 19th day of October, and leave with him a list and full description of such Stock, in order that proper arrangements may be made for their accommodation.

Applicants for premiums are particularly requested to pay attention to the directions attached to the list of premiums for fat cattle, fat sheep, butter and cheese, &c., and the statements required from exhibitors of those articles must be lodged with the Secretary before the 19th of October.

Members of the Society, and the Viewing Committees or Judges alone, will be admitted on the first day of the Exhibition.

INSTRUCTIONS TO MARSHALS AND JUDGES.

The Marshal of each department will take special charge of the matters within his department, and will attend to their accommodation and arrangement.—At the appointed time he will get the Judges of his department together, and point out all subjects for their decision, and when their duty is discharged, he will get their report and return it to the Recording Secretary.

The Judges on Animals will have regard to the symmetry, early maturity, size and general qualities characteristic of the breeds which they judge. They will make due allowance for age, feeding and other circumstances on the character and condition of the animals. They will not give encouragement for overfed animals. They will not award premiums for Bulls, Cows, or Heifers, which shall appear to have been fattened for the butcher; the object being to have superior animals of this description for breeding.

No person whatever will be allowed to interfere with the Judges during their adjudications.

The Judges on Stock, if not satisfied as to the regularity of the entries in their respective classes, will apply to the Secretary for information; and should there be any doubt, after examination, of their coming within the regulations, or if any animal is of such a character as not to be entitled to exhibition in competition, they will report the facts to the Executive Committee, that such course may be adopted as the case may require.

The Judges will be expected in all cases, making their reports, to give the reasons of their decision, (especially in the case of animals) embracing the valuable and desirable qualities of the animals or articles to which premiums are awarded.

When anything is exhibited to the Judges, which they shall deem meritorious, but beyond their power to award a premium to, they will furnish a note of the same to the Committee on Discretionary Premiums, for their consideration and action.

No animal or article can take more than one Premium.

All productions placed in competition for premiums must be the growth of the competitors.

When there is but one exhibitor, although he may show several animals in a class or sub-division of a class, only one premium will be awarded—that to be the first or otherwise, as the merit of the animal or article may be adjudged. And a premium will not be awarded when the animal or article is not worthy, though there be no competition.

THE ADDRESS.

The Annual Address will be delivered at 1 o'clock, P. M., on Friday, the 22d of October, and immediately after the Address, the Reports of the Viewing Committees or Judges, will be read, and the Premiums awarded and distributed.

HAY AND STRAW.

Hay and Straw will be furnished gratis for all animals entered for premiums, and grain will be provided, at lowest cost price, for those who desire to purchase.

PLOUGHING MATCH.

The Ploughing Match will take place on Friday, the 22d, at 9 o'clock, A. M., in a field adjacent to the place of Exhibition.

From the great liberality heretofore extended by Railroad and Canal Companies upon occasions of this kind, exhibitors may count upon having animals and articles intended for exhibition, transported free of cost; and visitors to the show will be able to purchase tickets at greatly reduced rates.

LIST OF PREMIUMS.

It will be observed that the Pennsylvania State Agricultural Society have made the field of competition co-extensive with the United States. We, therefore, cordially invite the citizens of other States to compete with us for our prizes.

The Society will take great care in the selection of their Judges, and they confidently hope that all who shall be named will deem it a matter of duty to attend. The names of the Judges will be announced and published at least one month before the exhibition.

Persons who desire to sell improved live-stock or implements are requested to notify the Secretary thereof in due time, that greater publicity may be given thereto. The sales will be conducted under the direction of the officers of the Society.

CATTLE.

SHORT HORNS.

For best Bull 3 years old and upwards,	\$15
Second best do do	10
Best Bull between 2 and 3 years,	10
Second best do do	6
Best Bull between 1 and 2 years,	8
Second best do do	5
Best Bull Calf over 4 months,	5
Second best Bull Calf do	3
Best cow 3 years old and upwards,	12
Second best do do	7
Best Heifer between 2 and 3 years old,	8
Second best do do	5
Best Heifer between 1 and 2 years old,	6
Second best do do	4
Best Heifer Calf over 4 months,	4
Second best Heifer Calf do	2

BERFORDS.

For the best Bull 3 years old and upwards,	\$15
Second best do do	10
Best Bull between 2 and 3 years,	10
Second best do do	6
Best Bull between 1 and 2 years,	8
Second best do do	5
Best Bull Calf over 4 months,	5
Second best Bull Calf do	3
Best Cow 3 years old and upwards,	12
Second best do do	7
Best Heifer between 2 and 3 years old,	8
Second best do do	5
Best Heifer between 1 and 2 years,	6
Second best do do	4
Best Heifer Calf over 4 months,	4
Second best Heifer Calf do	2

AYRSHIRE.

For best Bull 3 years old and upwards,	\$15
Second best do do	10
Best Bull between 2 and 3 years,	10
Second best do do	6
Best Bull between 1 and 2 years,	8
Second best do do	5
Best Bull Calf over 4 months,	5
Second best Bull Calf do	3
Best Cow 3 years and upwards,	12
Second best do do	7
Best Heifer between 2 and 3 years,	8
Second best do do	5
Best Heifer between 1 and 2 years,	6
Second best do do	4
Best Heifer Calf over 4 months,	4
Second best Heifer Calf do	2

HOLSTEIN.

For best Bull 3 years and upwards,	\$12
Second best do do	8
Best Bull between 2 and 3 years,	8
Second best do do	5
Best Bull between 1 and 2 years,	6
Second best do do	4
Best Bull Calf over 4 months,	4
Second best Bull Calf do	2
Best Cow 3 years and upwards,	10
Second best do do	7
Best Heifer between 2 and 3 years,	8
Second best do do	5
Best Heifer between 1 and 2 years,	6
Second best do do	4
Best Heifer Calf over 4 months,	4
Second best Heifer Calf do	2

NATIVES OR GRADES.

For best Bull 3 years and upwards,	\$10
Second best do do	7
Best Bull between 2 and 3 years,	6
Second best do do	4
Best Bull between 1 and 2 years,	5
Second best do do	3
Best Bull Calf over 4 months,	3
Second best Bull Calf do	2
Best Cow 3 years and upwards,	10
Second best do do	7
Best Heifer between 2 and 3 years,	6
Second best do do	4
Best Heifer between 1 and 2 years,	5
Second best do do	3
Best Heifer Calf over 4 months,	4
Second best Heifer Calf do	2

DEVONS.

For Best Bull 3 years and upwards,	\$12
Second best do do	8
Best Bull between 2 and 3 years,	8
Second best do do	5
Best Bull between 1 and 2 years,	6
Second best do do	4
Best Bull Calf over 4 months,	4
Second best Bull Calf do	2
Best Cow 3 years and upwards,	10
Second best do do	7
Best Heifer between 2 and 3 years,	8
Second best do do	5
Best Heifer between 1 and 2 years,	5
Second best do do	3
Best Heifer Calf over 4 months,	4
Second best Heifer Calf do	2

ALDERNEY.

For best Bull 3 years and upwards,	\$13
Second best do do	8
Best Bull between 2 and 3 years,	8
Second best do do	5
Best Bull between 1 and 2 years,	8
Second best do do	4
Best Bull Calf over 3 months,	4
Second best Bull Calf,	2
Best Cow 3 years, and upwards,	10
Second best do do	7
Best Heifer between 2 and 3 years,	8
Second best do do	5
Best Heifer between 1 and 2 years,	6
Second best do do	4
Best Heifer Calf over 4 months,	4
Second best Heifer Calf,	2

WORKING OXEN.

For best yoke of Oxen,	15
Second best do do	10
Third best do do	7

A cart will be provided to test the working qualities of the animals.

FAT CATTLE.

For best pair fat Steers, or Oxen,	\$15
Second best do do	10
Best fat Cow,	8
Second best do	4
Best fat Heifer,	6
Second best do	3

Applicants for premiums for fat cattle must furnish statements of manner of feeding.

The Judges of Fat Cattle will give particular attention to the animals submitted to them for examination. It is believed that all other things being equal, those are the best cattle that have the greatest weight in the smallest superficies. The cattle exhibited in this class will all be weighed, and the Judges will take measures to give the superficies of each, and publish the result with their reports.

SHEEP.

FINE WOOL.

For best Buck,	\$6
Second best do	4
Best pen of Ewes, not less than 3,	6
Second best do do	4
Best pen of Lambs, not less than 4,	5
Second best do do	3

LONG WOOL.

For best Buck,	\$6
Second best do	4
Best pen of Ewes, not less than 3,	6
Second best do do	4
Best pen of Lambs, not less than 4,	5
Second best do do	3

MIDDLE WOOL.

For best Buck,	\$6
Second best do	4
Best pen of Ewes, not less than 3,	6
Second best do do	4
Best pen of Lambs, not less than 4,	5
Second best do do	3

NATIVE OR MIXED BLOOD.

For best Buck,	\$5
Second best do	3
Best pen of Ewes, not less than 3,	6
Second best do do	4
Best pen of Lambs, not less than 4,	5
Second best do do	3

IMPORTED SHEEP.

For best imported Buck and Ewe, of any description, each	\$10
Second best do do do	6

SWINE.

LARGE BREED.

For best over 2 years old,	\$6
Second best do do	4
Best Boar 1 year old,	6
Second best do	4
Best Boar 6 months and under 1 year,	6
Second best do do	4
Best breeding Sow over 2 years,	6
Second best do do	4
Best breeding Sow, 1 year,	6
Second best do do	4
Best Sow 6 months and under 1 year,	6
Second best do do	4
Best lot of Pigs, not less than 5, under 6 mo.,	6
Second best do do do	4

Including Chester, Berkshire, Hampshire, Leicester and their grades.

SMALL BREED.

For best Boar over 2 years,	\$6
Second best do	4
Best Boar 1 year old,	6
Second best do	4
Best Boar 6 months old,	6
Second best do	4
Best breeding Sow over 2 years,	6
Second best do do	4
Best breeding Sow 1 year old,	6
Second best do do	4
Best Sow 6 months old,	6
Second best do	4
Best lot of Pigs, not less than 5, under 6 mo.,	6
Second best do do do	4

Including Neapolitan, Suffolk, improved China, Chinese, Mocha, and their grades.

HORSES.

For best Stallion for heavy draught,	\$15
Second best do do	10
Best brood Mare for heavy draught,	10
Second best do do	6
Best Stallion for quick draught,	15
Second best do do	10
Best brood Mare do do	10
Second best do do	6
Best Stallion for saddle,	15
Second best do do	10
Best brood Mare for saddle,	10
Second best do do	6
Best Horse Colt between 2 and 4 years old,	10
Second best do do do	6
Best Filley or Mare Colt between 2 and 4 year old,	8
Second best do do do	5
Best Horse Colt between 1 and 2 years,	6
Second best do do	4
Best Filley or Mare Colt between 1 & 2 years,	6
Second best do do do	4
Best pair of Carriage Horses,	10
Second best, do	6
Best Jack,	6
Second best do	5
Best pair of Mules,	8
Second best do	5
Best team of Mules, not less than 4,	10
Second best do do	6

POULTRY.

For best pair of Turkeys,	\$2
Do Geese,	2
Do Muscovy Ducks,	2
Do Common Ducks,	2
Do Jersey Blues,	2
Do Dorking Fowls,	2
Do Bucks County Fowls,	2
Do Shanghai do	2
Do Cochon China do	2
Do Capons,	3
Best caponed Turkey,	3
Largest collection of Fowls,	8
Next largest do	5

Similar premiums will be awarded for other varieties of Poultry.

TOBACCO.

For the best sample,	\$8
Second best do	6

The samples must be duplicate samples, and no competitor shall receive more than one premium.

AGRICULTURAL PRODUCTION OF FIELD CROPS.

For best 5 acres of Corn,	\$15
Best acre of do	8
Do 5 acres of Wheat,	15
Do acre of do	8
Do acre of Irish Potatoes,	10
Do half acre do	6
Do acres of Rye,	10
Do 5 acres of Oats,	8
Do 5 acres of Barley,	8
Do 5 acres of Timothy,	8
Do 5 acres of Clover,	8
Do quarter acre of Carrots,	8
Do quarter acre of Ruta Baga,	8
Do quarter acre of Sugar Beets,	8
Do quarter acre Mangel Wurzel,	8
Do quarter acre Turnips,	8

Competitors for Premiums for the above Agricultural Productions must produce a full statement of the mode of cultivation, and accompany the same with the certificate of two respectable men as to the product and the measurement of the ground, and also exhibit a sample of each crop at the Annual Meeting in January, when these Premiums will be awarded.

AGRICULTURAL PRODUCTS.

For the best bushel of White Wheat,	\$2
Do Red Wheat,	2
Do Rye,	2
Do Flint Corn,	2
Do Gourd Seed Corn,	2
Do Mixed Corn,	2
Do Oats,	2
Do Irish Potatoes,	2
Do Sweet Potatoes,	2
Do Field Turnips,	2
Do Ruta Baga Turnips,	2
Do Sugar Beets,	2
Do Carrots,	2
Do Parsnips,	2

At least a bushel of each kind must be exhibited. Similar premiums may be given for any new or improved varieties of agricultural products.

AGRICULTURAL IMPLEMENTS.**CLASS NO. I.**

Best double horse Plough,	\$
Second best do	5
Best single do	3
Second best do	3
Best Cultivator,	4
Second best do	2
Best Harrow,	4
Second best do	5
Best Roller,	3
Second best do	3
Best Subsoil Plough,	3
Second best do	3

CLASS NO. II.

Drills and Broadcasting Machines; Wheat and Grass cutters, of all descriptions; Wheat or Grass Rakes by horse power; Cradles, Carts, Wagons, Wagon Gears, Cart Gears, Ox Yokes and Ox Gears.	\$10
Best Drilling Machine, for grain or grass seed,	5
Second best do do	5

Best Drill for corn or other grain,	8
Second best do do	4
Best Mowing or Reaping Machine,	10
Second best do do	5
Best Horse Rake,	4
Do set of Wagon Harness,	4
Do Ox Yoke,	2
Do Grain Cradle,	2
Do Wagon for farm use,	8
Second best do	4
Best Ox Cart,	8
Second best do	4
Best Horse Cart,	5
Second best do	3
Best set Cart Gears,	4
Do Plough Gears,	4
Best double set of Carriage Harness,	6
Second best do do	4
Best single set do do	4
Second best do do	2

CLASS NO. III.

Horse powers and all machines propelled by horse power not enumerated above; corn shellers, corn and cob crushers, by hand power, straw cutters, and grinders by hand power.

Best sweep horse power,	\$10
Second best do do	5
Best rail-way horse power,	10
Second best do do	5
Separator,	6
Best Hay and Straw Cutter,	4
Corn sheller,	4
Corn-stalk Cutter and Grinder,	5
Corn and Cob Crusher,	5
Threshing Machine,	8
Second best do	4

CLASS NO. IV.

All implements or machines not enumerated above.

Best Fanning Mill,	\$5
Root and Vegetable Cutter,	2
Drill Barrow for Root Crops,	4
Churn,	4
Hay and Dung Forks,	2
Hand Rakes,	2
Portable Hay-press,	20
Second best do	10

Best and most numerous collection of Agricultural Implements, with description thereof,

Second best do

In addition to the foregoing premiums on agricultural implements, Diplomas and Premiums will be awarded for such new and meritorious implements as may be exhibited by the Judges on Discretionary Premiums.

Persons presenting agricultural implements or articles of mechanical ingenuity, are requested to furnish the Secretary with a particular description of the article, and the price and place where it can be obtained, as it is intended to publish a list of the articles exhibited at the Fair for the benefit of the manufacturer and purchaser.

DAIRY AND HONEY.

For best specimen of fresh butter, not less than 5 lbs.,	\$5
Second best do do do	3
Third best do do do	2
Or Silver Butter Knives of equivalent value.	

Best firkin or tub of salted butter, not less than 3 months old,	8
Second best, do do do	5
Third best, do do do	3
Best 10 firkins of tubs, do do	25
Best Cheese, not less than 25 lbs.,	5
Second best do do	2
Best 10 lbs. honey,	5
Second best do	2

The Honey to be taken without destroying the bees, and the kind of hives used, and the management of same to be stated by competitors.

The method of making the butter and cheese to be also stated by each competitor.

FRUIT.

For best and greatest number of choice varieties of Apples,	\$5
do do do Peaches,	5
do do do Pears,	5
do do do Quinces,	5
do do do Grapes,	5
Second best of each of the above,	2
Greatest number of choice varieties of different kinds of Fruit,	8
Second best, do do do	5

VEGETABLES.

For the choicest and largest assortment of table vegetables,	\$8
Second best assortment do	5
Best doz. long Blood Beets,	2
Do Turnip Root Beets,	2
Do 6 heads of Cauliflower,	2
Do 6 heads Brocoli,	2
Best 12 heads of Cabbage,	2
Do doz. Carrots,	1
Do doz. bunches Celery,	1
Do doz. Egg Plants,	1
Do peck of Onions,	1
Do doz. Parsnips,	1
Do half bushel Seedling Potatoes,	1
Do peck Sweet Potatoes,	1
Do 3 field Pumpkins,	1
Do 6 winter Squashes,	1
Do sample of Beans,	1
Do do Peas,	1

And similar premiums may be awarded for other fruit and vegetables of approved quality.

FLOWERS.

For the greatest and choicest varieties of flowers,	\$8
Second best collection,	5
Best and greatest varieties of Dahlias,	5
Do do do Roses,	5
Do do do Camellias,	5

HOUSEHOLD MANUFACTURES.

For best Quilt,	\$5
Second best do	3
Best Counterpane,	3
Second best do	2
Best Hearth Rug,	3
Second best do	2
Best pair Home-made Blankets,	2
Do Home-made Carpet,	2
Do made Shirt,	5

Second best do	3
Best fine long Yarn Hose,	3
Second best do	1
Best coarse do	2
Second best do	1
Best Home-made Soap,	3
Second best do	2
Best Home-made Bread,	2
Second best do	1
Best Home-made Pound Cake,	2
Do do Sponge Cake,	2
Do specimen of Pickles,	2
Do do Preserves,	2
Do do Fruit Jelly,	2
Do do Embroidery,	2
Do do Worsted Work,	3

Discretionary Premiums of \$1 to \$2 each can be awarded for meritorious articles not enumerated in the above list, to the amount of \$20.

SILK.

For best lot of Silk Cocoons,	\$5
Second best do do	3
Best specimen of Raw Silk,	3
do do Reeled Silk,	3
do do Sewing do	3
Best pair Silk Stockings,	3
Best Silk Shawl,	3
do Handkerchief,	3

And similar premiums for other Silk products and manufactures.

DOMESTIC WINES, BOUNCE and CORDIAL.

For the best Home-made Wine,	\$3
Do do Bounce,	3
Do do Cordial,	3

BACON HAMS.

For the best Ham cured by exhibitor,	\$5
Second best do do	3
Third best do do	2
Fourth best do do	1

All competitors for these premiums are required to have their Hams cooked and brought to the exhibition with the skins on. Each ham must have a card attached to it, with a motto written upon it, and be accompanied by a sealed letter, endorsed with the same motto, in which shall be given the name of the exhibitor and a statement of the manner of curing.

PLOUGHING MATCH.

For best Ploughing,	\$15
Second best do	10
Third best do	8
Fourth best do	5
For best Ploughman,	6
Second best do	4
Third best do	3
Fourth best do	2

The value of Ploughs, in point of strength, durability, and lightness of draught, will be tested and submitted to a committee.

STEAM ENGINES.

For the best Portable Steam Engine adapted to agricultural purposes generally,	\$25
Second best do do do	10

Seedling Cherry.

MR. EDITOR: I send you a description of a cherry, to which the name of "Conestoga" has been given, which I deem quite an acquisition to our list of native fruits. It is of a large size, (nearly equal to Black Tartarian,) very regular heart shaped; color, dark crimson; stalk about an inch and a half long; in a very even shallow cavity; flesh soft, with a very good flavor. It ripens about the 1st of July. The tree is a very vigorous grower, and is a great and uniform bearer.

The original tree stands in the middle of a large field, in Conestoga township, on land now owned by David Book, where it accidentally sprung up amongst some briars and rubbish, some twenty or twenty-five years ago.

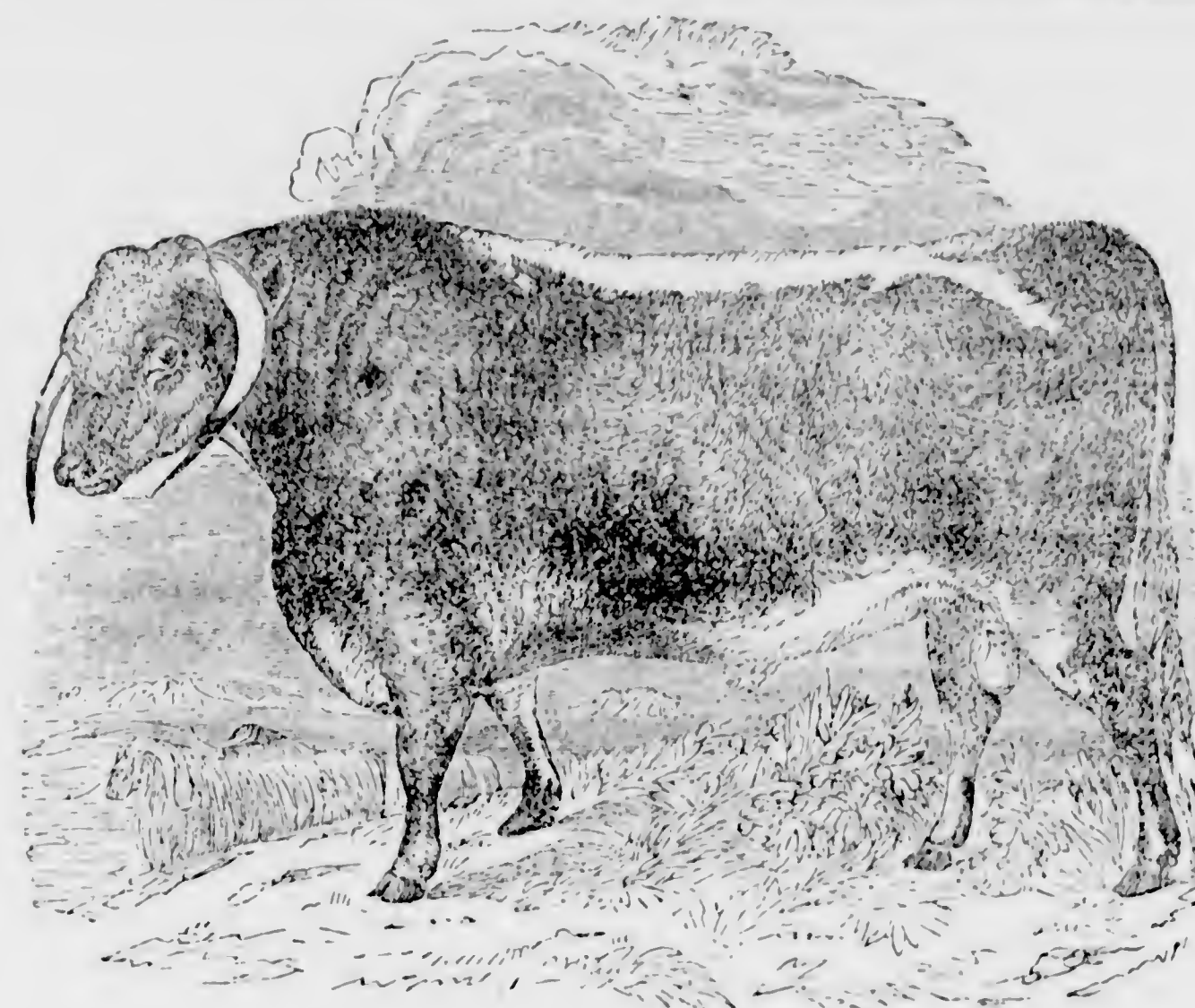
CASPER HILLER.

Conestoga Centre, July 5th, 1852.

COMMON SENSE vs. NONSENSE.—Dr. F. Tuthill delivered an address the other day before the Agricultural Society of Suffolk county, New York, and in the course of his remarks he touched upon "the false shame of labor," in the following manner:

"The day has already come in our cities that if a man stout as Milo of old, has a load of wood brought to his door, and he really aches for the pleasure of handling it, yet must he hire a man to pitch it into the cellar, while he stands idly by, not so much as touch a stick of it on pain of losing caste. If a stout and vigorous citizen, whose muscles swell with an access of strength, has a load of wood lying on the sidewalk, he may as well hang himself at once as be foolish enough to save and saw it up himself; yet if the man has pitched it in, and the grate is down so that he shall not be seen, we are not sure but he may saw on till doomsday, and no one esteem him less a gentleman. If he curry and tackle his own horse, or lead him to the stable when he has done with him, he is unpardonably vulgar. He would no sooner be caught carrying a trunk the length of a block to an omnibus than stealing a body from a grave yard; yet he will boast among his friends of the enormous weight he carries in the gymnasium, having paid a fee of thirty dollars for the privilege. And his friends applaud his gymnastic expenditures as wise and exceedingly judicious, for sure they say, "how can a man live without exercise?" In short, labor which promotes the ends of economy is an abominable thing; that which advertizes their imbecility is a source of pride. These soft handed gentry may be our sons and brothers, but we fancy they must at all times be ashamed of our common father, old Adam who farmed in Paradise."

ANGER may repast with you for an hour, but not repose with you for a night.



NEW LEICESTER LONG HORN BULLS.

A great improver of the long-horns was Mr. Prince of Croxal, in Derbyshire. He was supposed at that time to have the best dairy of long-horn cows in the whole of the midland counties. He originally bred them from a cow of the name of Bright, who was got by Mr. Webster's Bloxedge, the father of the Canley blood, and he much improved his breed through the medium of Shakespeare. It was remarked, that every cow and heifer of the Shakespeare blood could be recognized at first sight as a descendant of his. Mr. Marshall thus describes the Leicesters in his own time, which was that of Bakewell, Prince, and Fowler.

"The forend long; but light to a degree of elegance. The neck thin, the chap clean, the head fine, but long and tapering.

"The eye large, bright and prominent.

"The horns vary with the sex, &c. Those of bulls are comparatively short, from fifteen inches to two feet; those of the few oxen that have been reared of the breed are extremely large, being from two and a half feet to three and a half feet long; those of the cows nearly as long, but much finer, tapering to delicately fine points. Most of them hang downward by the side of the cheeks, and then, if well turned, as many of the cows are, shoot forward at the points.

"The shoulders remarkably fine and thin, in bone; but thickly covered with flesh—not the smallest protuberance of bone.

"The girth small, compared with the short-horn and middle-horn breeds.

"The chine remarkably full when fat, but hollow when in low condition."

This is considered by accurate judges to be a criterion of good mellow flesh. The large hard ligaments, (the continuation of the ligaments of the neck, united with those of the vertebrae of the spine itself,) which in some individuals, when in low condition, stretch tightly along the chine, from the setting on of the neck to the fore part of the loins, is said to be a mark of the flesh being of a bad quality. They are only proofs of great strength in the spine, and, prob-

ably, in the animal generally; and indicating that the meat will be sinewy and tough.

"The loin broad, and the hip remarkably wide and protuberant."

A wide loin, with projections of fat on the hips, may be desirable; but there can be neither beauty nor use in the protuberance of the tuberosities of the bone. A full hip may be of advantage, but scarcely a protuberant one.

"The quarters long and level; the nache of a middle width, and the tail set on variously, even in individuals of the highest repute.

"The round bones small, but the thighs in general fleshy; tapering, however, when in the best form toward the gambrels.

"The legs small and clean, but comparatively long. The feet in general neat, and of the middle size.

"The carcass as nearly a cylinder as the natural form will allow. The ribs standing out full from the spine. The belly small.

"The flesh seldom fails of being of the first quality.

"The hide of a middle thickness.

"The color various; the brindle, the fawn-back, and the pye, are common. The lighter, the better they are esteemed.

"The fattening quality of this improved breed, in a state of maturity, is indisputably good.

"As grazier's stock, they undoubtedly rank high. The principle of the utility of form has been strictly attended to. The bone and offal are small, and the forend light; while the chine, the loin, the rump and the ribs are heavily loaded, and with flesh of the finest quality. In point of early maturity, they have also materially gained. In general, they gained a year in preparation for the butcher; and although perhaps not weighing so heavy as they did before, the diminution of weight is abundantly compensated, by the superior excellence of the meat, its earlier readiness and the smaller quantity of food consumed.

"As dairy stock, it does not admit of doubt that

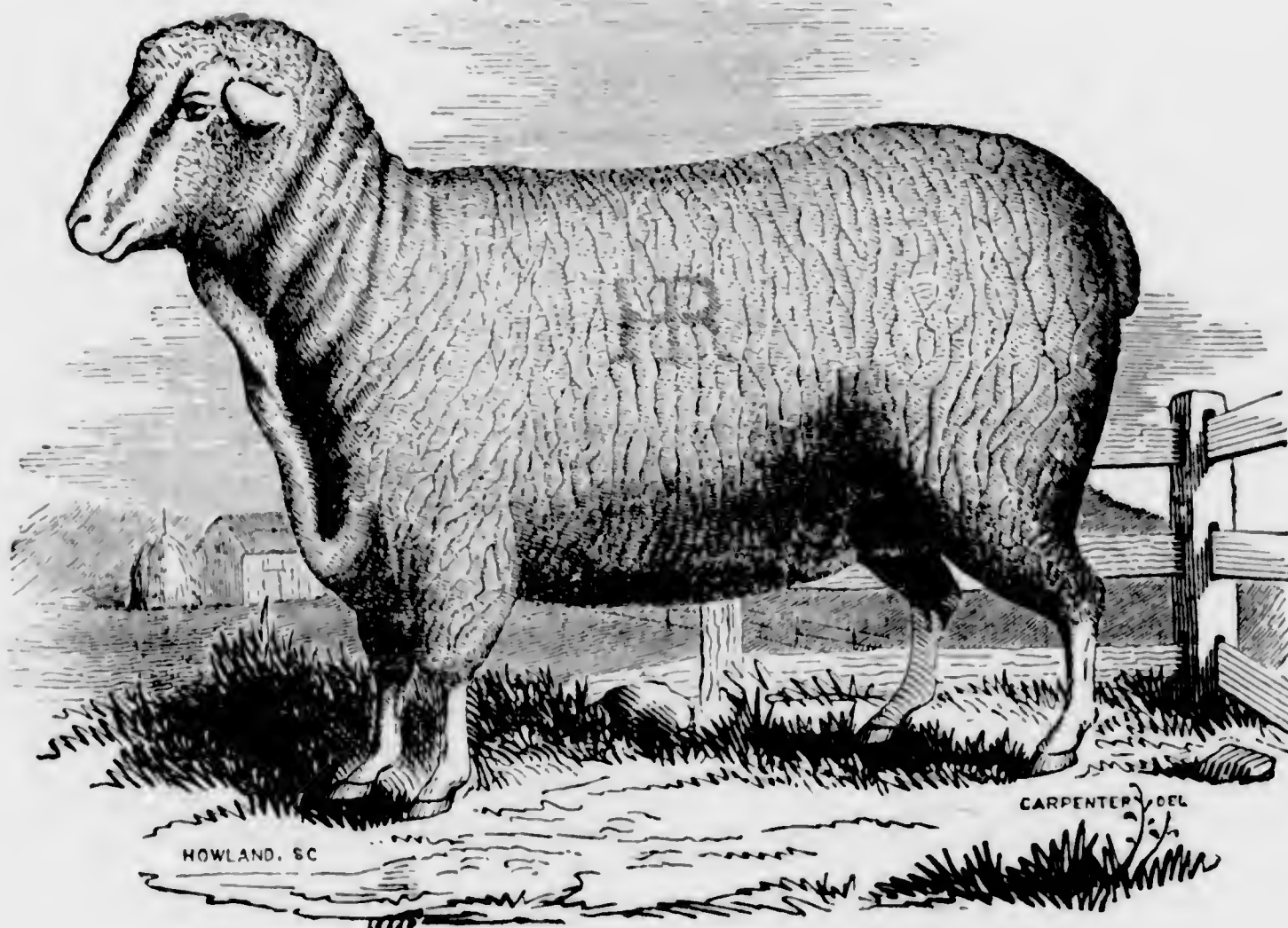
their milking qualities have been very much impaired. "As beasts of draught, their general form renders them unfit: yet many of them are sufficiently powerful, and they are more active than some other breeds used for the plough, or on the road; but the horns generally form an insuperable objection to this use of them."—*Youatt & Martin on Cattle.*

The Merino.

The Merino, though a native of a warm climate, becomes readily inured to the greatest extremes of cold, flourishing as far north as Sweden, without degenerating in fleece or form. It is a patient, docile animal, bearing much confinement without injury to health, and possesses none of that peculiar "voraciousness of appetite," ascribed to it by English writers. Accurately conducted experiments have shown that it consumes a little over "two pounds of hay per diem, in winter; the Leicester consumes from three and a half to four; and the common woolled American sheep would not probably fall short of three.—The mutton of the Merino, in spite of the prejudice

which exists on the subject, is short grained and of good flavor, when killed at a proper age," and weighs from ten to fourteen pounds to the quarter. "It is remarkable for its longevity, retaining its teeth and continuing to breed two or three years longer than the common sheep," and at least half a dozen longer than the improved British breeds; "but it should be remarked in connection with this fact, that it is correspondingly slow in arriving at maturity. It does not attain its full growth before three years old, and the ewes in the best managed flocks, are rarely permitted to breed before they reach that age."

The Merino is a far better breeder than any other fine-wooled sheep, and experience goes to show that its lambs, when newly dropped, are hardier than the Bakewell, and equally so with the high bred South-Down. The ewe is not so good a nurse, however, as the latter, and will not usually do full justice to more than one lamb. Eighty or ninety per cent. is about the ordinary number of lambs usually reared, though it often reaches one hundred per cent. in carefully managed or small flocks.—*Randall's S. H.*



MERINO EWE.

The use of the siphon for watering plants.

The following simple plan for protecting cucumbers from the effect of severe drought, has been successfully tried by a gentleman of Lancaster City:

A small vessel of wood or earthenware (he used paint kegs) was placed near the Cucumber hills. A piece of rope, (first thoroughly saturated with water) was then laid from the vessel to the root of the vines. This rope acting upon the principle of the siphon, discharged the water from the vessel directly to the roots of the vines, thus maintaining a sufficient degree of moisture to keep them in a flourishing condition, when all the vegetation around was parched with drought. Those who feel desirous of trying the experiment will bear in mind the fact that the short-

est part of the rope must be immersed in the water, otherwise it will not operate. Although the use of the siphon is well known, we have never known it applied to the watering of plants before.

ARDENT IN THE commencement, careless towards the conclusion. This is a fault common to many in the conduct of their affairs, and one which always ought to be guarded against; for, without perseverance and steadiness, few projects can be brought to perfection, and without these essential qualifications, no difficulties are ever surmounted, no consummation is ever attained; and how many once flourishing concerns do we see crumble away? how many once thriving establishments dilapidated, through this defect in the conductors?

NATIONAL AGRICULTURAL CONVENTION.

The Convention was held in the Lecture Room of the Smithsonian Institute.

Judge Frederick Watts, of Pennsylvania, was temporarily called to the chair, and Richard S. Mercer, of Maryland, and Doctor Daniel Lee, of Georgia, were appointed Secretaries. The total number of members were 151, representing 23 States and Territories.

Mr. King, of Rhode Island, from the committee of seven appointed to nominate permanent officers of the Convention, submitted the following nominations, which were unanimously adopted:

For President—Marshall P. Wilder, of Mass.

For Vice Presidents.—Henry Wager, of N. Y.; Frederick Watts, of Pa.; Charles B. Calvert, of Md.; William F. Hunter, of Ohio; George W. Nesmith, of N. H.; John H. Throckmorton, of Va.; H. K. Burgwyn, of N. C.; T. J. Rusk, of Texas; James Duane Doty, of Wis.

For Secretaries.—William S. King, of R. I.; B. P. Johnson, N. Y.; J. A. Warder, of Ohio; J. D. B. De Bow, of Louisiana.

Mr. Wilder, amidst much applause, took the chair, and addressed the Convention as follows:—

Gentlemen of the Convention:—I will not interrupt the proceedings of this body by any extended remarks from the chair; but I cannot forbear to tender to you my heartfelt gratitude for the honor you have conferred upon me in selecting me to preside over your deliberations—an honor which is connected with a pursuit which has ever laid near my heart.

Permit me also to express my great gratification that there are present so many members representing the agricultural interest of this great Republic—some gentlemen coming from different and distant parts of the Union, at great personal sacrifice; but whether from the North or the South, the East or the West, I extend to each of you the hand of fellowship, and I greet you as brothers in a common cause.

Gentlemen, we come here with no sinister motives; we have no political arguments to advance; we have no sectional or party purposes to promulgate, but we are here for more important purposes. We are here to advance an art coeval with the existence of the human race—an art which employs eighteen millions of our population, any four-fifths of the capital in our fair land—an art which lies at the very foundation of national and individual prosperity and wealth, the basis of commerce, of manufactures, and of industrial pursuits. We are an agricultural people; our habits, our dispositions are rural. I rejoice that it is so, and I pray that it ever may continue to be so. Our country embraces every variety of soil, and is capable of producing of the products of the torrid and temperate zones; and with a suitable application of science to this art, and a wise division of labor, with proper Governmental aid, there is no reason why American agriculture may not sustain competition with that of any other nation of the civilized globe.

The progress of agriculture, as you all know, gentlemen, has been slow in the United States, but a new era has now commenced. The old worn out systems of cultivation, which have been followed by father and son, and from generation to generation, are now to be swept away, and science is now to take its place in aid of honest industry. I rejoice, gentlemen, that we live at this day; I rejoice that the seed planted by the immortal Washington, and which has been watered by thousands of other eminent agriculturists, is now taking root, and that we live in our day to realize some of the proud results of their hopes.

Much of the progress which has been attained in our country, is the result of individual enterprise, aided by the agricultural press; but the great motive power is confederated action, is associated effort.—Gentlemen, we have met on this occasion to avail ourselves of this powerful impetus. At no period in the history of our country has there been such an assembly collected for the purpose of considering those objects for which we are brought together, and there has been no opportunity which is so favorable to the interests of the farmer.

Permit me again, gentlemen, to tender you my thanks for the distinction you have conferred upon me, and to say that in the course of our deliberations I may, with your permission, participate in your debates.

On motion of Mr. Lee, it was resolved, "That it is expedient to form a National Agricultural Society."

Mr. Jessup, of Pennsylvania, apprehended that there would be very little difference of opinion upon this question. Many gentlemen had come here, as far as he had been able to learn, not only desirous that a national organization should be effected, but with the expectation that other things not immediately connected with its organization should also be acted upon. For his part, he could see no difficulty in accomplishing an organization, and also effecting all other things that might be deemed desirable. If a national organization of this character should interpose between the people and national action on this subject, he himself would be opposed to it, because he did believe the time had come when the agricultural interests of the nation had a right to demand an agricultural department of this government, to protect, sustain, and promote their interests. If the organization which was proposed could at all interfere with the prosecution of this great object, he should have great doubts as to its expediency; but at the same time, if this should not be accomplished at this session of Congress, he believed a national organization would be the medium of communication between the farmers of the Union and the Congress of the nation, which might eventuate in the accomplishment of what the farmers of this Union, when they should understand the bearing of the great question, would demand with perfect unanimity.

A committee of one from each State was then appointed, to prepare business for the Convention.

And thereupon the Chairman announced the following gentlemen to constitute said committee:

Messrs. Holcomb, of Delaware; Douglas, of Illinois; J. A. King, of New York; Dawson, of Georgia; French, of Massachusetts; Steele, of New Hampshire; Thurston, of Rhode Island; Hubbard, of Connecticut; Stevens, of Vermont; Elwyn, of Pennsylvania; Calvert, of Maryland; Campbell, of Ohio; Hancock, of New Jersey; Callan, of the District of Columbia; G. W. P. Custis, of Virginia; Burgwyn, of North Carolina; Taylor, of Alabama; De Bow, of Louisiana; Spencer, of Indiana; Mallory, of Kentucky; Bell, of Tennessee; Weston, of Wisconsin; McLane, of California; Pickhard, of Maine; Seaman, of Michigan.

Several subjects were referred to this committee, and among others, to prepare a memorial to be presented to Congress relative to an Agricultural Bureau.

During the absence of this committee from the hall of meeting, several gentlemen entertained and instructed the Convention by delivering interesting addresses on the condition of agriculture in their respective States.

Mr. Calhoun, of Massachusetts, announced the

Marshfield farmer, Hon. Daniel Webster, as a delegate to the Convention, which was received with much applause.

Mr. Elwyn, of Pennsylvania, from the committee appointed to prepare business for the Convention, and report a constitution for the National Agricultural Society, submitted a constitution, which was read, and considered by sections.

Some discussion ensued as to the time and place where the Society shall hereafter meet, when an amendment was adopted providing that the meetings of the Society shall be held on the first Wednesday in February, in the city of Washington, the Executive Committee, with the assent of the Society, to have the power to call meetings elsewhere.

The Convention having adopted the constitution, then adjourned until seven o'clock in the evening.

EVENING SESSION.

The Convention, after a recess on Thursday, met again at 7 o'clock.

Mr. Holcomb from the committee on business, reported a preamble and resolution, setting forth the importance, &c., of fostering agriculture as a matter of national importance, and recommending that Congress authorize the establishment of a "Department of Agriculture."

Judge Douglas, from the same committee, gave notice of an intention to offer a substitute for the report.

On motion, the committee on business was authorized to select officers for the organization of the "United States Agricultural Society."

The committee retired; and during their absence the roll of delegates was called, to allow an opportunity of their signing the constitution of the society, and paying the initiatory fee of two dollars; which was done by all present.

Mr. Callan, from said committee, reported the following to constitute officers of the "United States Agricultural Society," for the present year:—

President—Marshall P. Wilder, of Massachusetts.

Vice Presidents—Ezekiel Holmes, Maine; George W. Nesmith, New Hampshire; Henry Stevens, Vermont; B. V. French, Massachusetts; Josiah Chapin, Rhode Island; S. D. Hubbard, Connecticut; Henry Wager, New York; Thomas Hancock, New Jersey; Frederick Watts, Pennsylvania; Peter F. Causey, Delaware; W. D. Bowie, Maryland; G. W. P. Custis, Virginia; H. K. Burgwyn, North Carolina; Thomas Witherspoon, South Carolina; Thomas Stocks, Georgia; Robert Jones, Alabama; Alex. H. Begnes, Mississippi; A. B. Roman, Louisiana; F. Kinsman, Ohio; Robert Mallory, Kentucky; Dr. John Shelby, Tennessee; S. A. Douglas, Illinois; D. R. Atchison, Missouri; T. B. Flourney, Arkansas; James L. Conger, Michigan; Dr. Simmons Baker, Florida; Thomas J. Rusk, Texas; W. F. Coolbaugh, Iowa; James D. Doty, Wisconsin; L. W. Boggs, California; John F. Callan, District of Columbia; S. M. Baird, New Mexico; Alex. Ramsey, Minnesota; Jos. Lane, Oregon; Jos. L. Hayes, Utah.

Executive Committee.—Chas. B. Calvert, Maryland; J. A. King, N. York; Dr. A. L. Elwyn, Pennsylvania; W. B. Newton, of Virginia; J. D. Weston, Wisconsin.

Corresponding Secretary.—Dr. D. Lee.

Recording Secretary.—Robert C. Walker.

Treasurer.—Wm. Seldon.

The report was adopted.

The report in favor of an Agricultural Department was called up.

Ramsay McHenry, of Maryland, expressed doubts

as to the Constitutional power of Congress to establish such department, and feared its being mingled with the politics of the day, and as a farmer and a friend of the interest he could nothing that could likely produce such issue.

Mr. Gentry suggested a different mode, by connecting such a department with the Smithsonian Institution.

Judge Douglass said he was ready to submit a substitute for the report, carrying out the view just suggested; and spoke at length to the subject.

Professor Henry, of the Smithsonian Institution, begged gentlemen to pause, and not hastily to take a step that might do injury to an institution that is now just entering upon a great useful, and flourishing plan of operations; and went into an explanation of the designs and present working of the Institution.

Judge Douglass briefly responded.

The Convention then, at near eleven o'clock, adjourned.

[During the session a committee was appointed to wait upon the President and Secretary of the State, and ascertain when it would be convenient to receive a visit from the Convention.]

SECOND DAY.

The Convention met yesterday morning at ten o'clock.

The subject of establishing a National Department of Agriculture was resumed.

Mr. Holcomb spoke at length on the subject.

Mr. John A. King, of New York, offered a substitute for the proposition under consideration, recommending to Congress the establishment of an Agricultural Bureau, upon whatever plan deemed most expedient. He responded to some remarks by other delegates, and especially in regard to the fears of a political character.

Mr. Calvert, of Maryland, spoke in favor of simply memorializing Congress in aid of the promotion of agriculture, as one of the great interests of the Government and the people. He cared not for or feared not any political interpositions in regard to the matter; and pressed the proposition as due to the agricultural interests.

Hon. Mr. Robinson, of Indiana, opposed all special legislation, believing that all his people desire, is a fair field, a clear sky, and an untrammelled commerce; that they might buy where they can buy cheapest, and sell where they can sell highest.

Mr. Conger offered a new plan to promote agriculture, to be presented to Congress.

Hon. Mr. Bell, of Ohio, favored making agriculture equal with other interests, receiving the consideration of Congress and the protection of Government.

Judge Douglass responded to the remarks of Mr. Holcomb, declaring the denunciations of various measures engrossing the attention of Congress as "iniquitous and unjust," as uncalled for, out of place, &c.

Mr. Holcomb inquired if the gentleman intended anything personal by his remarks.

Mr. Douglass said he should say nothing directly to offend, but should personally and directly prevent insult, either to himself or the Congress of the nation.

The reference of the gentleman to naturalization, Native Americanism, ocean steamers, &c., was an abuse of the privilege conferred upon any person to this convention, and calculated, if not intended

to make this occasion a political arena—a sort of political ratification meeting.

[The Hon. Daniel Webster, at this juncture, entered the hall, and his appearance called forth unbounded applause, amidst which he was conducted to a seat upon the platform.]

Mr. Douglass made some further remarks.

Mr. Holcomb responded. He discarded all intention of making a political speech; had only referred to such matters as had occurred to his mind whilst in the pursuit of his farming operations; and regretted the gentleman should have so construed his remarks.

Judge Douglass explained; and the understanding was reciprocal.

Mr. Steele, of New Hampshire, moved to lay the whole subject on the table.

Mr. Lewis of district of Columbia, desired the subject might be fairly presented to Congress for its action.

Mr. Gentry moved the previous question. Afterwards withdrawn.

Judge Jessup, of Pennsylvania, expressed regret that an idea should go out of any political feeling prevalent here.

Further remarks were made by General Rusk, and Hon. Jacob Thompson, of Mississippi. General Rusk submitted a substitute, merely asking of Congress to take into consideration the interests of agriculture, and to adopt such measures for that object as may be deemed best.

Mr. Thompson favored leaving this whole movement to the local societies of the States, and protested against any attempt, here and now, to press any special project upon Congress.

Mr. John A. King, of New York, by general consent, offered the following as a substitute for all other propositions on the subject.

Resolved, That this Convention respectfully request Congress to take action upon the subject of agriculture, and afford such efficient aid as in their wisdom shall be best calculated to advance the great interest of that branch of industry.

Adopted. On motion of Henry T. Burgwyn, of North Carolina, the officers of the Convention were requested to present the foregoing resolution to Congress.

The various local societies were requested to solicit members to the national society.

After the usual vote of thanks to the presiding officer, and a pertinent reply on his part, a similar vote of thanks to Professor Henry for the use of his room, and an invitation to visit the President at 2 o'clock, the Convention, on motion, adjourned *sine die*.

VISIT TO THE PRESIDENT.

The members of the Convention, in accordance with arrangement, visited the President, when he was addressed by the President of the Convention, (M. P. Wilder,) as follows:

Mr. President:—We appear before you as the representatives of the agricultural interests of the United States—as the representatives of an employment upon which must ever depend, if we may trust the history of the past, not only the welfare and prosperity of one art or profession, of one individual or nation, but of the civilized world.

We have been in Convention in this city, to consult in relation to the advancement of this great interest. We have established a United States Agricultural Society, and a committee has been appointed to memorialize Congress for its promotion.

Our deliberations are closed, and we are about to

return to our respective homes. But, Mr. President, we could not leave the seat of Government without first paying our respects to you as Chief Magistrate of our beloved Union, and of assuring you of our profound respect for your private worth and distinguished character.

To which President Fillmore responded as follows:

Mr. President:—Your kind remarks have taken me by surprise, and I fear that I have no fitting words to make a suitable acknowledgement. I am most happy, however, to meet you and your friends of the National Agricultural Society, and to welcome you to the Executive mansion. I appreciate most profoundly the importance of your association to the agricultural interests of the country. I was myself brought up on the farm. I know by experience the labor and toil of a farmer's life. When a boy I have followed the plough till I was so weary that I could hardly walk to the house at night. I have swung the scythe and handled the sickle all day; but am happy to learn that these laborious occupations are now much relieved by the invention of reaping and mowing machines.

But the farmer's life with all its toil affords a happy independence that the professional may well envy. I am gratified to hear that you have formed a National Association for the object of collecting and diffusing information. In this way you will concentrate your energies and extend your usefulness; and as your occupation is the great foundation of the wealth and prosperity of the country, everything calculated to advance it should be hailed with delight and approbation by every citizen of the Republic. Whether in or out of office, be assured that I shall always take a deep interest in the prosperity of the agricultural interests of the country. Without this our arts, manufactures, and commerce must languish, but all may be prosperous together. Hoping that your infant society may prove a blessing to the country, I beg leave to return you my grateful acknowledgements for the kind and flattering manner in which you have been pleased to speak of me personally, and of my official conduct; and shall be most happy to take the several members of your society by the hand, and to wish them a pleasant sojourn in our city, and a safe return to their families.

The delegates proceeded from the President's house to the residence of the Secretary of State, where they were cordially received.

In response to a brief address from the President of the Convention, Mr. Webster made a few remarks, which elicited the highest admiration and applause.

Pennsylvania Horticultural Society.

The stated meeting of this Association was held on Tuesday evening, July 20th, 1852, in the Chinese Saloon, Phila., Gen. Patterson, president, in the chair. The exhibition was unusually fine in each department; the displays of plants remarkably so, and consisting of five extensive collections all in flower. The president's gardener contributed a very large table of of finely grown specimens—Hydrangeas, Yuccas, Gardenias, Gloxinias, fine varieties of Fuchsias, etc.—James Dundas' gardener, beautiful specimens of Stigmaphyllon Ciliare, Stanhopea Grandiflora, which is one of the finest air plants, Cattleya Crispa, Torenias, Gloxinias, Fuchsias and Hydrangeas. Harry Ingersoll's gardener, a collection of Gloxinias and Achimenes, which did him great credit. Caleb Cope's gardener presented twenty-six plants, among which were Achimenes Gloxiniaeflora, A. Leibmannii, Adonia Versicolor, Fuchsia Fair Rosamond and Don

Giovanni, double purple Chinese Primrose, all new and shown for the first time. John Lambert's gardener had a handsome collection. Thos. F. Croft brought very fine Pinks and double Poppies. The bouquets and designs were arranged with much taste. The design by Isaac Collins, gardener to Gen. Patterson, was large and beautiful, and formed of choice flowers. Thos. Meehan, gardener to Caleb Cope, had a large basket of select flowers, the centre of which displayed the 77th flower of the Victoria Regia, from the same plant, and was a beautiful specimen, also a design of exotic, and a basket of native flowers. Rob. Kilvington and Thos. Meghran exhibited creditable baskets and bouquets.

The fruit table presented temptingly its delicious burthen, comprising fine specimens of Black Hamburg Grapes, from Robert Egee's houses. Peaches—the Noblesse, Crawford's early Melacotan, George IVth, and Rare ripe varieties. Plums—the green gage and purple gage, all from Caleb Cope's. The Musch and Baxter's Seedling Apricot, Wilder Raspberry, Giffard and Muscat Pear, large yellow and large green Gooseberries, from Isaac B. Baxter. The Moorpark Apricot, from James Dundas. Four varieties of Cherries and one of Plums and Peche Apricot from Mrs. J. B. Smith. Madeline Pears, by H. W. S. Cleveland. Miser Plum, by A. Parker. Red Currants and Cherries, from Mrs. N. A. Roe. Red Currants and Blush Apples from Mrs. M. Snyder. Fine Apples and Peaches, from John Perkins. White Currants, from Miss Gratz. Black Currants from John Lambert.

The collections of Vegetables were really very fine and were exhibited by Anthony Felton, jr., Thomas Meghran, gardener to R. Cornelius, John Miller, gardener to Joseph S. Lovering, Maurice Finn, gardener to John Lambert, and Thomas Meehan, gardener to Caleb Cope.

The following are the premiums awarded on the occasion:

By the Committee on Plants and Flowers:—

Plants in Pots—For the best collection, to Isaac Collins, gardener to Gen. Patterson; for the second best, to James Bisset, gardener to James Dundas; for the third best, to Thomas Robertson, gardener to Harry Ingersoll. *Plant in a pot*, the *Zauchsneria Californica*, to W. McIntosh, foreman to Robt. Buist.

Bouquet Designs—For the best to Isaac Collins, gardener to Gen. Patterson; for the second best to Thomas Meehan, gardener to Caleb Cope; for the best hand Bouquet, to Robert Kilvington; for the best Indigenous Bouquet to the same. *Basket of Cut Flowers*, for the best, to T. Meehan, gardener to C. Cope; for the best formed of Indigenous flowers, to the same.

The Committee noticed a very handsome collection of Pinks from Thos. F. Croft, and neat collections of Plants from Maurice Finn and Thomas Meehan, gardener to C. Cope.

By the Committee on Fruits:—

Grapes, black variety—For the best, the black Hamburg, to Robert Egee. *Apricots*—For the best, the Moorpark, to James Bisset, gardener to James Dundas; for the second best, the Baxter seedling, to Isaac B. Baxter. *Plums*—For the best, the Green Gage, to Thos. Meehan, gardener to C. Cope; for the second best, the Miser, to Alex. Parker. *Pears*—For the best, the Beurre Giffard, to Isaac B. Baxter. *Apples*—For the best, the Prince's Harvest, to John Perkins. *Cherries*—A special premium to the 16 to the pound variety, to Mrs. J. B. Smith. *Currants*—For the best Red, to M. Snyder; for the best White, to John M. Gallagher, gardener to Miss Gratz; for

the best Black, to Maurice Finn, gardener to John Lambert. *Gooseberries*—For the best, the large Green, to Isaac B. Baxter; for the second best, the large Yellow, to the same—and special premiums for splendid specimens of Noblesse Peach and a collection of Nectarines, to Thos. Meehan, gardener to Caleb Cope.

The Committee also submitted an *ad interim* report. The Committee on Vegetables are pleased to report remarkably fine displays, large in quantity and of superior growth; and award the following premiums:

Tomatoes—For the best half peck, to James Jones, gardener at the Girard College; for the second best, to John Miller, gardener to Joseph S. Lovering. *Vegetables*—For the best display by a market gardener, to Anthony Felton, jr.; for the best by an amateur, to Thos. Meghran, gardener to Robt. Cornelius; for the second best, to John Miller, gardener to J. S. Lovering. And special premiums to Maurice Finn, gardener to John Lambert, and Thomas Meehan, gardener to Caleb Cope, each for very fine displays.

On motion ordered that fifteen delegates to the American Pomological Congress be appointed, with authority to supply vacancies and add to their number if necessary.

An amendment to the by-laws was proposed.

A communication from the Corresponding Secretary of the New York Horticultural Society was read, proposing a co-operation with our association in promoting a common cause. On motion adjourned.

THO. P. JAMES, Rec. Secretary.

Original Communications.

An Item of Agricultural Surgery.

MR. EDITOR:—The above heading I have no doubt will appear to many as being useless and only experimental. But my intention is to give you a short description of a case that came under my notice and show to the numerous readers of your valuable Journal that surgery may be as successfully practiced among the brute creation as it is among mankind.

Not long since one of my neighbors brought to my office a very large dung-hill Cock, which he said he would soon lose if something was not done for it. He told me the fowl was a favorite of the family and had been fed everything. I came to the conclusion it was a pampered animal and, like many other bipeds from high living and a want of exercise—that indigestion was the main seat of his complaint.

I told my friend that his rooster had dyspepsia. He laughed at the idea and said he thought it was impossible, as that was a disease belonging to man and not to brutes. I carefully examined the Cock and found his crop very much distended and very hard—and when I placed him on his feet he would repeatedly fall forward from the enormous weight of his crop. Presuming that his stomach wanted relief, and not knowing how an emetic would operate, I determined to perform an operation at all hazards.

Having, as I thought, diagnosed the case properly, I commenced by making an incision into the crop with a scalpel and removing from therein almost a quart of matter; among which were many whole

grains of Indian corn, oats, watermelon seeds, &c. which had not undergone any process of digestion, and which caused a very fetid odour from putrefaction having taken place.

After removing the contents of the crop, I carefully washed it out and then sewed up the incision: this being done, I set the Cock upon his feet, when he immediately strutted about and flapped his wings, showing to those who stood by and witnessed the operation, that he was relieved. It has now been several days since the operation was performed and the Cock appears to be doing finely, so much so, that I am satisfied that the operation has been successful; and that he will be a better Cock than he was before, for the kind, which will be poor enough, at least, in comparison to the celebrated Shanghaes and Chittagongs.

With these few remarks permit me to hope that some of your readers will give this subject their attention and if possible extend the science.

JNO. P. TAGGART.

Hills Grove, July 8, 1852.

[The surgical operation above recorded is not new; almost every experienced fowl breeder is familiar with it. We, however, publish it for the benefit of those who may not have been aware of the fact that the life of a valuable fowl may sometimes be saved by so simple a plan. We tried it once, but for want of proper surgical skill, or some other cause, our patient died a few hours after the operation.]

Shepherds—Sheep raising in Pennsylvania.

MR. EDITOR:—The cover of your Journal represents, very appropriately, a shepherd and his dog. Certainly one of the most important personages in agricultural pursuits, as from him we trace the first dawn of agriculture, thousands of years ago. He it is who renders the mountains of Scotland, otherwise unproductive, a source of wealth,—it is to him we owe the fine cloth of Saxony, formerly a scarce article, and only produced in small quantity by the indolent Spaniards. It is through him the little kingdom of Saxony has tripled its agricultural wealth, within the last fifty years. But where is such a personage to be found in Pennsylvania? The branch of the Allegheny mountains that stretches from the Delaware to the Potomac, through Pennsylvania, a great portion of which has been laid bare of its timber by fire, is situated in a far more genial climate than the mountains of Scotland. What are they used for? To pasture a few lean cattle:

One of your correspondents complains that he has lost eleven hundred dollars by the destruction of sheep by dogs. Such a complaint would make a Saxon sheep breeder smile, when informed that these sheep were suffered to run at large without being under the care of a shepherd.

From the time of the Patriarch Jacob to our own days, it is presumed that sheep can only prosper under the care of a shepherd. Every animal but the sheep appear to know how to avoid danger. It is one of the most helpless animals, and therefore from time immemorial has been under the care of a shepherd.

Twenty years ago, I visited and examined with much care the sheep folds (Schafereg) in Saxony. I saw the great profits the system pursued there gives to the land owners, and it struck me very forcibly that we had such an extensive and valuable sheep walk in Pennsylvania on the Allegheny mountains as would be worth millions to the Saxon sheep breeder, but which is entirely unproductive to us. In vain I have called on my city friends to invest some capital jointly with me for the purpose of establishing a sheepfold (Schafereg) on the Saxon system.—What advantage it would be to the cloth manufacturer, in the vicinity of Philadelphia, to have his own flock of sheep brought to the same perfection as the Saxon. There is nothing to hinder it. In a few hours he could reach by railroad the foot of the blue mountains, the seat for the sheepfold, being an exhaustible sheep walk. He could there inspect his flocks under the care of a Saxon shepherd—superintend the washing and shearing of the sheep and have the wool properly assorted.

It is well known fact that one fleece contains four different qualities of wool, and one of the most important operations in wool growing is to properly separate that part of the fleece which is required for the superfine cloth.

In England, sheep are raised principally to produce good fat mutton. It is a well known fact that good fat mutton and fine Merino wool cannot be raised upon the same sheep's back. The manufacturers of the fine cloth, in England, have therefore to depend upon the imported Saxon wool.

To enter into a more minute detail of my observations, would incumber the columns of your journal too much. I will therefore close by remarking that, to gentlemen who feel an interest in what I have proposed, and will join me in an undertaking to develop a source, in agriculture, now left unproductive, I will give any information and enter in to further particulars by writing or personal meeting.

H. SHUBART.

Bethel, Berks co., Pa., July, 1852.

Comparative Bearing Qualities of Old and Young Grape Vines.

MR. EDITOR:—I have made numerous observations on the old and new grape vine, and am perfectly satisfied, in my own mind, that a vine of five or six years old, having a proportionate thickness, will not bear as fine and richly flavored grapes, as one of two or three years growth. By close examination it will be

found that the new vine (which necessarily must bring the grapes) of the first, will not be so thriving and healthy as those of the last. Admitting that in blossoming they differ a little; yet some will soon fail, and fewer grapes in the bunches are sure indications that the old vine has failed to supply sufficient vital force, to form a grape from every embryo. I do not wish to say, that none fail in the vine of a few years only; inasmuch as failures will be found there; but careful attention will soon disclose the fact, that he who constantly raises new vines from the surface, will have thriving vines, splendid grapes and few failures, whilst the product of the old vines will be puny, and the failures frequent.

I shall be happy to have a corroboration or denial of this, by those whose practical observations and experiments are more extensive than my own.

E. R. BEAVER.

Centre Point, Montgomery Co., Pa. July 2.

Our correspondent will scarcely find his observations sustained by those of others who have written upon the vine. Hoare in his "Practical Treatise on the Grape Vine" differs with him entirely. From a series of extensive and careful observations he presents the following as a "Scale of the greatest quantity of grapes, which any vine can perfectly mature, in proportion to the circumference of its stem, measured just above the ground:

Cir.	lbs.	Cir.	lbs.
3 inches	5	7 inches	45
3½ do	10	7½ do	50
4 do	15	8 do	55
4½ do	20	8½ do	60
5 do	25	9 do	65
5½ do	30	9½ do	70
6 do	35	10 do	75
6½ do	40		

It will be seen, that if 2½ inches be deducted from the circumference of the stem of any vine, the capability of it will be equal to the maturation of ten pounds of grapes for every remaining inch. The proportionate quantity for fractional parts of an inch may be easily calculated."

From this scale it will be seen that vines of the age preferred by our correspondent are smaller in girth than any admitted by Mr. Hoare to be capable of bearing fruit, without positive injury to the vine itself. The grape vine rarely, unless under peculiarly favorable circumstances, attains a greater circumference than two inches in the third year, and here we again quote from Mr. H.:

No vine is taken cognizance of, until its stem measures three inches in girth, as, under that size, vines ought never to be suffered to ripen any fruit. This is a rule that should be strictly adhered to in the management of young vines, for it may safely be asserted that for every pound weight of grapes extracted from a vine before it has grown to that size, ten pounds will be lost during the next five years, independently of the very severe check which is given to its growth by premature bearing. But by husbanding its strength,

till its roots have multiplied sufficiently to provide a full supply of nourishment without suffering from exhaustion, the plant commences its fruit-bearing life with a degree of vigor which lays a sure foundation for its future prosperity.

Will not some one of our correspondents favor us with their observations on this subject?

Plan for a Farm School.

EAST BRADFORD, Chester co., July 22, 1852.

MR. EDITOR:—I will ask leave through your periodical, to call the attention of the farmers of this State to what I conceive to be a practicable and economical mode of founding an Agricultural School, namely—by the subscription of individuals in the form of stock. A farm of a sufficient number of acres could be purchased, in a central and easily accessible part of Pennsylvania, for fifteen or twenty thousand dollars. The house upon it, if not thought to be large enough, could be added for five thousand more, or probably much less. The barn and other out-buildings, it is probable, would be both capacious and numerous enough without any additional outlay. A capital of twenty-five thousand dollars seems to be ample for this portion of the scheme. The next point is as to the amount of money necessary to pay the salary of a principal, who should be a good practical farmer, and two or more instructors in the usual branches of an English education, and such departments of literature and science as it may be decided should be taught. It is not easy to give a sum necessary for this purpose, as it is to be supposed the school and the farm will do a good deal more than pay the expenses, so as to render it unnecessary to raise a sum much beyond the price of the farm, and the unavoidable incidental expenses at the first.

But if another twenty-five thousand dollars be thought to be essential, the whole investment will then be fifty thousand dollars, to be paid in small sums by such liberal individuals as think the plan will be useful, profitable and honorable to themselves and their State. I do not offer a matured plan of an agricultural institution, as it will be clear to every one who reflects upon the matter, that this would require much thought, and much discussion; but I present a suggestion which I wish my fellow-citizens to express their opinions upon. In all such shadowings forth there are considerations full of hope, that rise smilingly before the mind, and others full of despair that press upon and alarm the imagination; but with an open and free imagination, all these assume their proper position.

In the present condition of our State finances, I think it wrong to call upon the legislature, nor do I believe it possible to establish a plain, inexpensive, working institution, if the legislature of the State should grant a charter for such a purpose as a State Agricultural School. One of the first feelings that

would come into the minds of legislators and their constituents, would be a magnificent idea of State grandeur, a vast body of land, a host of professors, a mine of expense, and a mass of impracticableness that would sicken the wildest visionary, would follow as the faithful successors of the first hasty impulse, and the farmers of the State would turn up their eyes in horror, or smile with contempt at such an overshadowing monument of folly and pretension, erected out of their money, and suitable for the instruction of their sons in the plain and unpretending duties and principles of practical agriculture.

I would respectfully, gentlemen, ask your opinion and that of all who feel an interest in the progress of agriculture, and of those who labor in it, and I suggest that if the idea given above find favor, that a body of delegates from different parts of the State come together and consider the whole subject. I will also take the liberty of proposing to the County Agricultural Societies, that this topic be brought before them, and that a report be made of the opinions of the members.

A. L. ELWYN.

In a conversation with the writer of the above, a few days since, we gave our hearty assent to the proposition to establish a Farm School upon the principles laid down in his communication, believing it to be the only feasible one, which has yet been presented. Although several communications on the subject of a State Agricultural College in Pennsylvania, have from time to time appeared in our columns, we never believed it possible to establish one, or if established, to render it of any practical utility to the sons of our farmers generally. Here is a plan however, in which many of the objections to which a State Agricultural College would be open, are avoided.

The late hour at which the article was received, and the crowded state of our columns prevents us from giving our views in a more extended form at this time. We are requested by Dr. Elwyn to say, that not being provided with a list of the County Societies of the State, he is unable to open a correspondence with them on the subject. He will be under obligations to the Secretaries of the various Societies and if they will furnish him with their address had views upon the subject of the School.

The Horse Clifton.

MR. EDITOR: As your excellent publication, the Farm Journal, is intended as a channel to bring to the knowledge of the farmers such information as may be useful to them, I have thought it would not be unacceptable to them and possibly to other of your contributors, to know something of the pedigree of the beautiful jet black Horse Clifton, which was exhibited at Harrisburg last fall, and which took the premium for quick draught. As the improvement of all stock is important to the farmer and the

community at large, I hope you will find room for the following:

His Grandsire was an imported horse, called Clifton. He was kept in Delaware Co. Pennsylvania, at \$100 the Colt, and for a number of years was the best horse on the turf. There are now but two horses known to be kept for service out of this horse Clifton; one of which is owned by Mr. Richard Kirkpatrick at New Bloomfield, Perry county, and the other by Mr. Samuel Huston, Silver Spring township, Cumberland co. the one referred to as being exhibited at the Pennsylvania State Agricultural Fair, and to which was awarded the highest premium for quick draft. (Several of his colts were at that time exhibited by Mr. Huston, which were favorably noticed by the proper Committee. One of these was there sold by Mr. Huston at \$200, and I have learned has since found his way to Philadelphia and changed owners at \$275.) The Sire of this splendid horse, Clifton, was taken to Westmoreland county, by a Mr. Dordendorf from whence he was brought to Cumberland county, by Mr. Samuel Huston, Senr., the father of Samuel Huston, the owner of the horse above referred to. In his neighborhood he is considered by good judges to be a most excellent horse.

Hogestown, Cumberland co., Pa.

B.

HARRISBURG, July 22, 1852.

DEAR SIR:—The following is an extract from the minutes of the Executive Committee of the Pennsylvania State Agricultural Society which met on the 20th inst.:

"Whereas, The Constitution of the United States Agricultural Society has made provision for the establishment of a Board of Agriculture to be appointed by the respective State Agricultural Societies, in the manner therein mentioned. Therefore,

Resolved, That Frederick Watts, Esq., of Carlisle, John H. Ewing, Esq., of Washington, Pa., and H. M. McCallister, Esq., of Bellefonte, Pa., be and they are hereby appointed by and on behalf of the Pennsylvania State Agricultural Society as members of the said Board of Agriculture."

ROBT. C. WALKER,

Recording Secretary of Penna. State Agr'l Society.

Farmers Troubles--The Grub Worm.

MR. EDITOR:—Hoping that yourself, or some of your intelligent correspondents, may be able to give a word of advice in regard to the best manner of destroying the large white worm, called "the grub worm" here, which is becoming so destructive to meadows and corn-fields in many places, and especially in this neighborhood, I am induced to ask the publication of an inquiry for information on that subject in the "Farm Journal."

J. W. A.

Millwood, Westmoreland Co. Pa.

THE FARM JOURNAL.

Agents.

THE FARM JOURNAL may be had at the following places:—

W. B. ZIEBER, South 3d St., principal agent for Philadelphia.

W. H. SPANGLER,	Lancaster, Pa.
B. F. SPANGLER,	Columbia, Pa.
GEO. BERGNER,	Harrisburg, Pa.
H. MINER,	Pittsburg, Pa.
J. R. SHRYOCK,	Chambersburg, Pa.
H. M. RAWLINS,	Carlisle, Pa.
A. L. WARFIELD,	York Pa.

and of Booksellers generally.

500 AGENTS WANTED.

We are desirous of securing one or more competent agents in every county in Pennsylvania, to canvass for the *Farm Journal*. Our terms are liberal, and we are assured by well-informed friends in every portion of the State, that competent and active agents could not fail to succeed well. We therefore invite persons desirous of taking agencies to address us (*post paid*) on the subject; furnishing us with satisfactory reference, and stating in what particular county they are desirous of canvassing.

AGENTS FOR THE JOURNAL.

WM. DOMER, of Altoona, Blair County, is our authorized agent for Blair and Centre Counties.

A. E. BRADY, Cumberland and Perry Counties.

S. PRESTON, Kennet Square, for Chester and Delaware Counties.

JONATHAN DORWART, Lancaster County.

We would again call the attention of good canvassers, to the *Farm Journal*. To men of intelligence, good address and business habits, it offers strong inducements. We could refer to several of our agents who have realized handsome profits from their efforts; and as the field is not yet half occupied, we shall be glad to hear from any persons desirous of acting in the capacity of travelling agents for us.—Our terms are liberal.

SITE FOR THE STATE FAIR.—The site for the State Fair has at length been selected. It lies North-East of the City Reservoir, within a short distance of the Philadelphia Turnpike. It is admirably adapted to the purpose, being easy of access, within convenient distance of one of the finest springs of Lancaster county—sufficiently elevated to command a view of as fine a country as ever blessed the eyes of man, and just far enough from the centre of the city to make it a pleasant walk, or a short drive for visitors and citizens. Preparation for the erection of fencing, shedding, &c., are already making, and we are assured that every attention will be paid to the comfort and convenience of visitors and exhibitors, and their stock and articles.

Unpaid Subscriptions.

There are a few subscriptions to the *Farm Journal*, (both for the first and second volume) yet unpaid.—In advertizing to this fact, we do not desire to be considered in a *dunning* mood, but simply to remind those in arrears, that such is the case; feeling satisfied they will thank us for the hint. We presume it is not necessary to inform our readers that our expenses are not only heavy, but must be paid in *cash*. Every dollar due us, therefore, is needed, and we hope that the hint above given will be received as the promptings of actual necessity, and be replied to accordingly. Send along your dollar, good friends. It will be a small amount to each one of you, but the aggregate is of much importance to us.

Charges at the State Fair.

A number of communications from warm friends of the State Society have reached us, in which the writers express the hope that the prices charged at Hotels and boarding houses, and by Omnibus proprietors, &c., will be reasonable; in order that those who visit the Exhibition may not go away dissatisfied. In reply to those communications we can only say that so far as we have been enabled to learn, the prices charged by our citizens will *not* be unreasonable. This appears to be the clear understanding at present, and we feel satisfied that the large majority of the persons alluded to, are directly opposed to any thing like imposition upon visitors. We doubt whether there is a city in the Union where as good accommodations can be obtained for the same money, and for the sake of this well established reputation, we hope and believe there will be no cause for complaint. We will remark in addition, that extensive arrangements for the comfort and convenience of those who may attend the fair are already in progress, and that every thing will be done by the proprietors of public houses as well as by private citizens of Lancaster to make the stay of their visitors pleasant and agreeable.

Fair of the Allegheny Co. Society.

The Annual exhibition will be held in Allegheny city, some time during the month of September. We do not know the precise time. It is our purpose to be present on the occasion, if possible, in order that we may inform our readers of what is doing by the farmers of the flourishing county of Allegheny. We owe the Society a debt of gratitude for offering the *Farm Journal* as a premium to competitors, and shall do every thing in our power to deserve the compliment. We have many warm friends in Allegheny, whom we hope to take by the hand in their own homes, this fall.

A REQUEST.—Will not the Secretaries of the different County Societies advise us of the time when their respective exhibitions will be held? We should like to be able to present the list to our readers in our next number.

The Premium List of the State Society.

We trust that the premium list of the State Agricultural Society, which we publish entire in the present number, will have the effect of awakening a more enlarged and deeper seated feeling of interest on the part of our farmers, mechanics, artisans and ladies, than has hitherto manifested itself. By a reference to the list it will be seen that the premiums offered are very liberal, embracing almost every department of business. This fact should not, we think, fail to attract a large number of competitors, and consequently, an immense crowd of visitors. The note of preparation is sounding in every direction. Scarcely a day passes in which we do not hear of some superior stock, new implement, elegant specimen of mechanical skill, or tasteful article of household manufacture in preparation for the exhibition. This is cheering, and leads us to believe confidently, that the display and attendance will not only greatly exceed that of last season at Harrisburg, but equal the great fair of the New York State Society, at Rochester.—This is, we know, anticipating much; but it is only what we have a right to expect from the farmers of Pennsylvania, if they are possessed of that degree of State pride they should. We are of a sanguine temperament and perhaps, our earnest desire to behold a fair display of the products of the "Keystone State," in October next, gives birth to the thought that we shall be gratified. But apart from every individual consideration, why should not the coming exhibition at Lancaster, equal that of New York, or Maryland? If any person will furnish a single satisfactory reason, why Pennsylvania with her well-titled acres, her skilful mechanics and tasteful housewives, should not rival any of her sister States, in an exhibition of her industrial products, we will then think that possibly, our judgment has erred. We have all the resources requisite, and we are very certain that if every man and woman in the Commonwealth felt as we do, and as all should, we shall have such a display as has never yet been seen in the United States. And pray why should not all possess this feeling? Is it not laudable? Is it not calculated to advance the great interests of society, by disseminating a more thorough knowledge of those principles upon which its comfort and happiness depend? It appears to us, that little argument is needed to convince every one, of these facts, and yet there are those who, if they do not positively condemn, give such a lukewarm support, that the character of their influence is difficult to determine.

If such persons would but carefully estimate the importance of properly directed individual influence, and permit themselves to become interested in the success of this great enterprise in behalf of agriculture,—if they would but satisfy themselves of the fact that State Agricultural Exhibitions are not individual, but general in their character, and as such,

designed to promote the interests and comfort of all; what a gratifying spectacle would the coming Exhibition afford! The doubts and fears of those who have labored most perseveringly to promote this great object would be at once removed. The Agricultural character of our State would be improved in every department, and as a consequence, wealth would flow in upon us more rapidly and abundantly, the comforts of life would be increased, and the happy influences which always result from honest endeavors, would be exerted upon the whole community.

Let every one, therefore, feel that his interests are involved in the success of the Exhibition, and feeling thus, let him put forth an effort to produce this success, either by contributing himself, or prevailing upon his friends who have articles worthy of exhibition, to enter as competitors for the premiums.

The following Memorial from the "Philadelphia Society for promoting Agriculture" should be followed up by others of similar character from every Society in the State. It is only by a concentration of effort, and unanimity of action, that the friends of Agriculture can hope to succeed in securing the legislative aid so long denied them. It is gratifying to observe, that public opinion is gradually, but steadily and certainly settling down to the conclusion that something must be done for husbandry as well as for other branches of human industry. The great number of County and State Agricultural Societies—the immense attendance at, and the interest felt in agricultural fairs and exhibitions all attest the growth of this feeling and more recently still, the organization of a National Agricultural Society composed of many of the most distinguished men in the country, cannot fail to have a powerful effect in producing the desired results:

To the Honorable the Senate and the House of Representatives of the United States.

The memorial of the "PHILADELPHIA SOCIETY FOR PROMOTING AGRICULTURE," respectfully sets forth:—That legislation is required for the benefit of agriculture; and the action of Congress in its behalf is invited by the spirit of the age and enterprising character of the country. Other governments have wisely, and with the best results, lent their assistance to the exertions of the industrious cultivators of the soil. France has by such means added largely to her prosperity, and Belgium has become known as the best cultivated country in Europe. The aid of government may be afforded not by preference of particular interests or promotion of the views of favored classes—not by systems of partial or temporary encouragement. Objects that are permanent and extensive may be reached by the exercise of unquestionable powers.—The general government can alone obtain the advantages which are to be derived from foreign intercourse. Improvement is often to be sought beyond the limits of our own country. A mutual interchange of knowledge of the fruits of investigation, and the success of skill and experiment, can be rendered easy

only by communications authorized by government. One authentic centre is desired, toward which all information may be directed, and from which it may be diffused.

The attention of Congress has been called to the subject by recommendations from the Executive assembled at the seat of government, in no respect sectional in its character, has very recently directed an appeal to Congress for "such aid to Agriculture as in their wisdom they may seem fit."

Your memorialists: representing the oldest agricultural association in the country, beg leave to second these appeals, and to express the hope that Congress may interpose effectually in behalf of this great interest. Already the habit is fixed of collecting and diffusing information in theory and practice through the Patent Office. This has been done through a succession of Administrations. Among the subjects discussed in the reports emanating from that office, none have given deeper interest or wider circulation to the numerous copies published under the auspices of Congress than those which concern the cultivation of the soil.

Your memorialists, in asking that a specific shape may be given to the encouragement bestowed by the general government, merely propose that an authority already exercised, may be made more available—that it may take a course that will be, in all respects, more systematic and satisfactory to the country.

Enactments by Congress for the benefit of agriculture are familiarly known, and have been without hesitation resorted to. Terms have been used in them so general and absolute, that it would be late in the day now to pause, merely because of a supposed doubt as to the authority for passing them.—Money has been directly appropriated by Congress, to be expended by the Commissioner of Patents in "the collection of Agricultural Statistics, and for other agricultural purposes."

Agriculture is the great employment of our people. At an early period, Franklin pronounced it to be the great business of our continent. The first President commended it as such to the care of Congress. Although it may not now be said that for one artizan or merchant there are at least an hundred farmers, as once was the fact, yet it is "a branch of industry which employs more than half our population, and to a great extent, sustains the other."

Your Memorialists respectfully pray that a law may be passed for the establishment of a separate Bureau, to be intrusted with the duty of promoting the agricultural interests of the country.

JOSEPH R. INGERSOLL,
ISAAC NEWTON,
ALGN. S. ROBERTS,
A. L. ELWYN,
AARON CLEMENT,

Committee on behalf of the Soc. of Philadelphia for prom. Agriculture.

THE HARVEST AND CROPS.—The weather during harvest (in our vicinity at least) was all the farmers could have desired. The wheat and rye, generally speaking, was secured in fine condition. We are lead to fear that the wheat crop of Pennsylvania will not be more than half the usual yield. In some sections the weevil has perpetrated its savages, in others the fly has

been at work, and from almost every section of the State, complaints of injuries from some cause reach us.

The oats crop, which is remarkably fine, has been secured in good order. While the corn promises a most observant yield. Potatoes look well, and immense quantities have been planted, but we do not think from present information that the yield will be large. The dry weather of the past few weeks has affected them very much.

OUR ADVERTISERS.—The attention of the reader is directed to our advertising department where something will be found to interest all. Messrs. Wheeler, Melick & Co., of Albany, offer their excellent Horse Powers and other implements. Wheeler's Horse Powers are manufactured and for sale also by Steever & Co., of Harrisburg.

Emory & Co., of Albany, present their list of prices for implements manufactured by them. For a full description of their Horse Power the reader is referred to their circular which accompanied our last number.

Messrs. Lee, Pierce & Lee, of Ercildoun, Chester county, are in the field with Moore's Drill, of the merits of which we have on several occasions spoken, and again most cheerfully bear testimony in its favor.

Attention is also asked to *Custer's Improved Drill*, for which the patentee claims superiority over all others. It is adapted not only to the sowing of seed, but also of guano, compost, &c. Mr. C. has added some other improvements, for which he is now taking measures to secure a patent.

Shriver & McLean, Commission and Produce Merchants, 34 S. Water, are good and reliable men, who, we have reason to know, will faithfully attend to all business matters entrusted to them.

Those in want of good Shanghai chickens will find them at 314 Market st., where they are for sale by I. S. Whitney.

Pennock's Drill is also offered to the public with valuable improvements. Although one of the first drills of American invention, it has always maintained a deservedly high reputation and is certainly a most excellent implement.

TO CORRESPONDENTS.—The length of the Premium List of the State Society, which we were very desirous of presenting to our readers, as well as the proceedings of the National Convention, which we copy from the Working Farmer, have crowded out a number of excellent communications, which shall appear in our next.

ERRORS.—In consequence of our unavoidable absence from home at the time when our first form went to press, a number of annoying typographical errors crept into it, which we hope our readers will overlook.

Book Notices.

The Paper Hanger's Companion, a practical Treatise on Paper Hanging, in which the practical operations of the Trade are Systematically laid down, &c.—By James Arrowsmith. Philadelphia: H. C. Baird.

This is a neat volume upon a subject generally too little understood by those who pursue it as an occupation in this country. The author, who writes from a practical experience of fifty years, clearly explains the requisites of each department of work, and endeavors to convince those who have paper hanging to do, that it is an operation consisting in something more than merely sticking paper on the walls, and that it is true economy always to have it done in a systematic and workmanlike manner. Every paper hanger should have it.

The Pennsylvania School Journal.—We welcome to our table the July no. of the School Journal, a publication devoted to the interests of education, and ably edited by Thomas H. Burrowes, whose zeal in the cause he has undertaken is well known to the citizens of Penna. Each number contains thirty-two pages of well written and elegantly printed matter, and the whole is furnished at \$1 per annum. As the Farm Journal is the only publication in Pennsylvania devoted exclusively to Agriculture, so the School Journal is the only one exclusively devoted to the cause of Education. We are pleased to learn that Mr. B. has already received most liberal encouragement, which we trust will be largely increased.

Graham & Godey for August, are both on our table, presenting their usual neat and attractive appearance, and both filled with choice contributions from our ablest literary writers; besides, numerous elegant plates by our first artists. When both present so many excellencies it is difficult to decide between their merits. We therefore recommend both to the attention of those who desire publications of such a character.

Harper's Magazine for June and July is—not on our table. Why, we cannot tell. Have you cut us, friend Harper? If so, we are sorry for it, for we always esteemed your Journal a most pleasant one, and one with which we generally spent the few hours we could spare from our business. We borrowed the two missing Nos., hoping they would eventually reach us.

Blackwood's Edinburgh Magazine.—The reprint of this old favorite for July commences the thirty-fifth volume. Its contents are as usual vigorous and refreshing. Price \$3. Blackwood and any of the four Reviews \$5—or the whole of the four Reviews and Blackwood \$10. Leonard Scott & Co. publishers, New York.

AGRICULTURAL IMPLEMENT WAREHOUSE.

No. 65, Chestnut street, Philadelphia.

THE subscriber offers for sale, Hay, Straw, and Cornstalk Cutters; Cornstalk Cutters and Grinders; Corn Cob Crushers and Grinders; Corn Shellers and Separators; Root Cutters, of the most approved patterns, warranted to cut, by hand power, from one to two bushels of roots per minute; Bamforth's celebrated Grain Fans; Grain Cradles, Revolving Hay Rakes, self-sharpening Plows, various patterns; plain point Plows of various patterns; Subsoil Plows, Harrows, Cultivators or Hoe Harrows, Churns, Seed Drills, Corn Planters, Corn Shellers, Scythes, Grass Hooks, Spades, Shovels, Rakes, Hoes, hay and manure Forks, &c., &c.

Orders received for any and every Agricultural Implement now in use, which will be furnished at manufacturer's prices.

August, 1852.)

D. LANDRETH,
No. 65, Chestnut st., Phila.

FRESH GARDEN SEEDS.

PEAS, Beans, Cabbage, Cucumbers, Celery, Radish, Lettuce, Beets, Parsnip, Carrot, &c. Grown and warranted fresh and genuine, by D. LANDRETH, Agricultural and Horticultural Implement and Seed Warehouse, 65 Chestnut street, Phila.

[August, 1852.]

CHOICE SHANGHAI FOWLS.

THE subscriber offers for sale a few pairs of choice young Shanghai fowls, sired by the celebrated cock "Washington," now owned by Dr. McIntosh, and reputed to be the best fowl in Pennsylvania. Also a few pairs of White Shanghaes.

August, 1852.)

F. H. WHITNEY,
No. 314, Market st., Phila.

DRILLS! DRILLS!! DRILLS!!!

WE are now manufacturing the LARGEST and BEST ASSORTMENT OF SEED PLANTERS ever offered to the public; several varieties of which we have constantly on hand. Those interested are respectfully invited to call, examine and satisfy themselves of their merits.

We have so improved and simplified our Drill, as to enable us to sell it at the following reduced rates:

One with seven tubes and wooden Seed Roller, quantity regulated by Screws,	\$80 00
For each additional Tube,	7 50
Seven Tubed do., iron Seed Rollers, regulated with screws	85 00
Each additional Tube,	10 00
Seven Tubed do., Single Hopper, and Patent Iron Seed Rollers, which, by the movement of a single screw, is regulated to seed any desired quantity per acre,	85 00
Each additional Tube,	10 00

In addition to the foregoing, we are building a large number of Slide Drills, which have been satisfactorily tested, and are warranted decidedly superior to any other Slide Drills in the market, particularly in the even distribution of the Grain upon rough and hilly ground; also in the facility and precision by which it is regulated to sow any desired quantity per acre, as well as in the lightness of draft, and general simplicity and durability.

For one of these Machines with seven Tubes,

each additional tube,

The above Machines are Warranted not to Cut, Break, or Waste Grain; to be made of the best materials, in a substantial and workmanlike manner, and to do the work more perfectly than any other.

They are not liable to choke with white caps or straw, and are suited to rough and hilly, as well as smooth and level land.

Owing to the peculiar form of our depositing tubes, they run easier and free themselves from filth better than any others.—These Tubes are supplied with Reversible Steel Points, either end of which can be extended as they become worn. The simultaneous throwing into and out of operation of the Seed distributing and depositing apparatus, (which we have patented) renders our machine capable of being managed with much more ease and certainty, particularly in seeding point and other irregular lands, than any other Seed Planter.

We also manufacture Horse-Powers and Threshers, Clover Hullers, with and without Fans, Horse-Rakes, Corn-Shellers, &c. Also, Steam Engines and Mill Work, Screw Cutting done to order; Castings of every description, of the best quality, furnished at Wilmington Prices.

S. & M. PENNOCK,
Kennet Square, Chester county, Pa.
P. S.—Paschall Morris & Co., West Chester, are Agents for any Machinery we build.
July 1, 1852.—3m.

R. BUIST,

NURSERYMAN & SEED GROWER,

HAS always on hand at his seed Store, 97, Chestnut Street, Philadelphia, a large stock of Seeds of his own growth, a very important item to purchasers, as he is a practical grower, and has been engaged in his profession over 30 years. His nursery ground is amply stocked with Fruit, Shade and Ornamental Trees, accurately named and properly cultivated. Every article sold at the lowest rates, and warranted to be as represented.

Seed Store, 97 Chestnut Street, Philadelphia. Nurseries and Seed Farm, Darby Road, two miles below Gray's Ferry.
June 1, 1851.

R. B. UIST.

FARMERS! LOOK TO YOUR INTEREST!

STILL GREATER IMPROVEMENTS IN GRAIN
DRILLS.
PRICE REDUCED TO SIXTY DOLLARS!



SEED AND GRAIN PLANTER.
MOORE'S PATENT

This Machine was Patented July 2, 1850, and has received the highest premium at all the Exhibitions where it has ever been contested; including New Castle County, Delaware, Agricultural Society, October 9th 1850; Philadelphia and Delaware County Agricultural Society, October 17th, 1850; Maryland State Agricultural Society, October 23d, 1850, and October 24th, 1851, and Michigan State Agricultural Society, September 25th, 1851.

THE ABOVE DRILL is not liable to get out of repair, is exceedingly simple in its construction, will sow point rows in all irregular shaped fields, and possesses superior advantages to all others in the ease and quickness with which it can be regulated to sow any desired quantity of Grain per Acre, while the draft upon the horses is twenty-five per cent. lighter, and consequently with the same labor, can seed one-fourth more ground per day than with most other machines now in use. The objection so common to Drilling Machines of becoming CHOKED if the seed is not perfectly cleaned, is entirely obviated in the Simple and Peculiar construction of this Drill, as white

MYERS' CHEMICAL ANIMAL MANURE.

That of offering to the public a Manure which comprises all that could be wished—its cheapness and surprising effects in producing larger crops in any kind of soil—is lasting and enduring qualities.

The subscriber offers this Manure to the public with a full knowledge of its powerful effects upon ground where used. This Manure must take its precedence above all others; its adaption to all kinds of soil, and every particle of fertilizing properties being preserved in the mode of manufacture, render it at once cheaper than any other manure used for all kinds of crops. Its effects are wonderful. A supply always on hand, WM. MYERS, Seventh Street near Germantown Road, Kensington, Phila.

READ THE FOLLOWING CERTIFICATES.

GERMANTOWN, October 8, 1851.

To Mr. Wm. Myers—Sir—Having tried your Chemico-Animal Manure upon potato ground, this season, I find it produce one-third more and larger potatoes than the best horse manure on the same ground. WM. K. COX.

The following additional certificate just received, speaks for itself. WOODBURY, N. J., 10th mo. 20th, 1851.

I have used upward of 1000 bushels of Wm. Myers' ANIMAL MANURE, on corn, potatoes, turnips, melons, and some other crops during the present season, and am satisfied that it is an economical and powerful manure, for turnips, radishes, and other root crops—my experience has shown it to be especially valuable. DAVID J. GRISCOM.

SPRING FIELD FARM, Cecil County, Md.

Mr. Wm. Myers—Dear Sir—I manured with your Chemico-Animal

caps and short straw will not interfere in the least with the regular distribution of the seed. It is warranted to distribute the seed evenly; to sow any quantity per acre commonly sown broadcast; to not cut or break the grains; to be well made with good materials and durable with proper care.

Having sold about 400 of the above Drills the past season, all of which met with the unqualified approbation of the purchasers; and after careful and thorough experiments, which have resulted in Still Greater Improvements, we now feel warranted in saying that Moore's Patent Seed and Grain Planter improved, is superior to any other machine for the purpose, now in the market.

Having made arrangements to furnish 1000 of the above Machines for sale the coming Season, we shall be prepared, at all times, to supply orders without delay.

All orders addressed to the undersigned will warrant prompt attention.

LEE, PEIRCE & LEE.

August, 1852.] *Errolldown P. O., Chester Co., Pa.*

mal Manure about 38 acres of the poorest land on my farm, and put half in Oats, and the balance in Corn. Although it was got in quite late, and the Season very unfavorable for the Corn crop generally, yet notwithstanding, I can say that it is decidedly the best Corn I ever raised, although I have farmed for 20 years, and have had good Corn land, and Manured well, as I thought, in the old way. While my neighbors' Corn was quite yellow and leaves curled up with the drought, mine was green and growing rapidly; therefore, I consider it one of the most valuable manures I ever used, and shall take pleasure in recommending it to my neighbors and others. Yours respectfully, E. M. SEELY.

SIDLE'S HUB, AUGUR AND BOX REGULATOR.

THE subscriber residing in Dillsburg, York county, Pennsylvania, has invented a new and improved Augur for the boring of hubs, and setting the boxes of wagon, carriage and other vehicle wheels for which I have obtained letters patent.

The Augur will bore both ends of the hub at the same time, or either separately—and is the most useful and important invention of the age for inserting wagon boxes and the only Machine in existence by which they can be inserted exactly true—and is so perfectly simple in its construction, and constructed on such just mechanical principles, that it cannot possibly get out of repair.

With this Augur a set of boxes can be inserted in a few minutes—where under the old system it requires hours to perform the same amount of work.

Persons wishing to purchase Territory or Shop rights will please address the subscriber, who will sell on terms that will enable the purchaser to make money. HENRY SIDLE.

Dillsburg, April, 1852—tf

CORNELL'S IMPROVED SELF REGULATING HORSE POWER.

On the endless chain plan, for which letters patent were obtained in February, 1852, is now offered to the public with the assurances that it will be found to possess advantages over all others now in use. It will operate at a LESS GRADE, will give more power at the SAME GRADE, and with less labor to the horse than any other. The comparatively small elevation at which this power operates efficiently, relieves that ruinous amount and kind of labor which other powers generally impose upon horses, and it is believed that its advantages in this important respect alone, if it possessed no other, must give it character, and bring it into very general use. But this result is further promoted by a most happy combination of forces which gives to it an exceedingly light and easy motion. The platform drums are large, and the arrangement of the whole driving apparatus upon friction rollers reduces the friction of the machine to such a slight amount that an almost inappreciable fraction of the power exerted by the horse will put the whole in motion. It is therefore peculiarly adapted for driving light machinery, where an excess of speed would endanger the machinery driven; and yet the solidity and strength of the power are such that it is equally well adapted to the driving of the heaviest kinds of machinery.

But it possesses other advantages—the Power is under the control of a GOVERNOR OR SELF-REGULATOR. As Horse Powers are generally constructed, no efficient means are provided for regulating the speed, or guarding against accidents arising from undue velocity. A portion of the machinery driven, or of the Power itself, may be thrown out of gear, and from this cause or some other, a greatly increased velocity may be given to the remaining parts of the machinery, and an increase of speed dangerous to the limbs of the horse. All such difficulties are entirely obviated by a Governor and Friction Brake, which regulate and control all undue velocity of the Power. Cornell's Power thus constructed, regulated and controlled, is singularly capable of the highest execution which such machinery can attain, and with safety. It is adapted to one or more horses, as may be desired.

Although but very recently produced, a large number of the Powers have been sold in a community in which those of Wheeler, Emery & Co., and others have been in use.

First Premium at Philadelphia County Exhibition.

At the Exhibition of the Philadelphia County Agricultural Society, held at the Rising Sun, October, 1851, the highest premium was awarded to Cornell's Power, although in competition with that of Emery & Co., and others.

The power exhibited above was new, and made without reference to such public exhibition, but, although subjected to the close examination of the very competent gentlemen who composed the official members of those associations, the result has been of the most flattering kind.

First Premium at Bucks County Exhibition.

Cornell's Horse Power was exhibited at the Bucks County Exhibition held at Newtown, October, 1851, and obtained the highest premium, although in competition with Wheeler's and others.

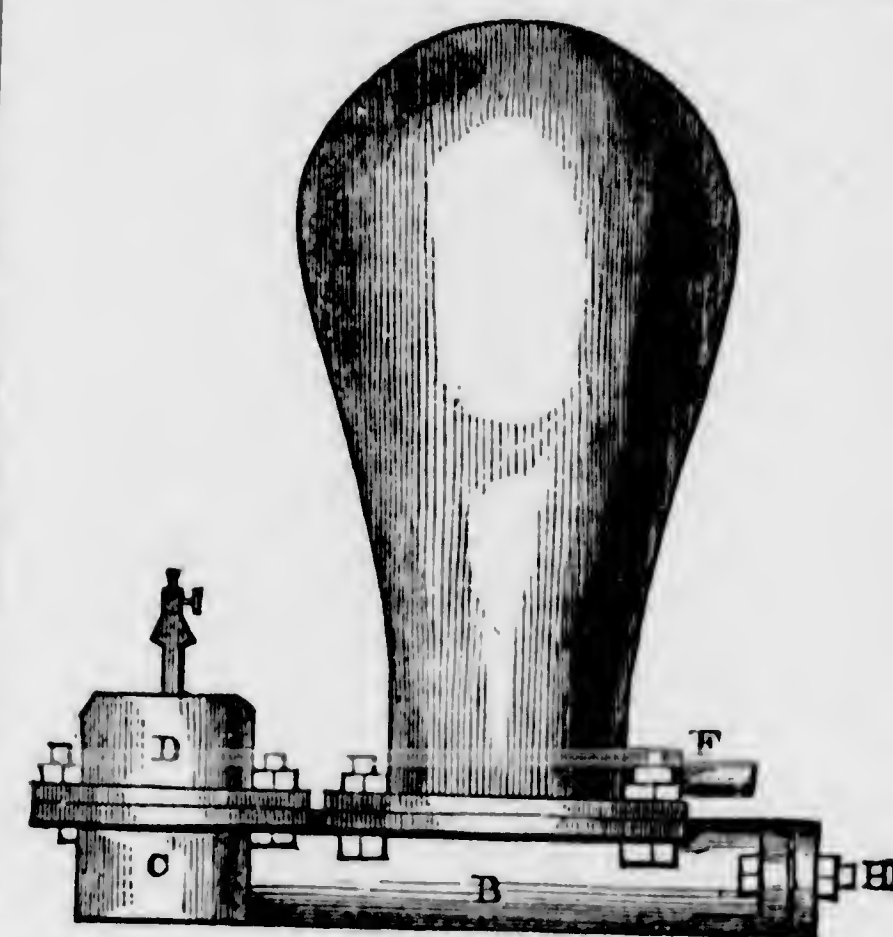
Additional information can be obtained by letter as above directed, and the Power is always open to inspection at the Depot, No. 156 Vine street, below Fifth, Philadelphia. The Patentee is open to negotiation for the sale of Township, County or State Rights. August, 1852.—3m.

TO THE FARMERS OF PENNSYLVANIA. SHIRIVER & McLEAN,

PRODUCE & COMMISSION MERCHANTS,

34 S. Water Street, PHILADELPHIA.

Respectfully inform Farmers, Millers and others, that they are prepared to attend to all business entrusted to their care, with dispatch and promptness, and with an eye to the interest of those who may patronize them.



A. an air chamber—B. body of ram—C. valve chambers—D. valve—F. coupling for delivery pipe—H. coupling for driving pipe.

J. B. CHICHESTER,

NO. 23, SOUTH EIGHTH STREET, PHILADELPHIA.

AGENT for Birkinbines Patent Improved Hydraulic Ram, Force Pumps, Street Stops, Fire Plugs, and Hydraulic Machinery in general.

The superiority of these Rams over all others is the great amount of water thrown to that wasted, the large size they can be constructed, the durability of them, as well as the small amount of attention and repairs they require—many running at present for 4 and 5 years, without any repair. At the present time there are in the United States, Cuba, Mexico and South America, about 2000 in successful operation.

The town of Naples in the State of New York is supplied with water by one of these Rams, throwing 20,000 gallons a day. Many more could be mentioned if space would permit.

Persons wishing Rams sent to them by measuring the amount of water their brook or spring affords, per minute, the head and fall they can procure, the elevation to be overcome, and distance to be conveyed, can have the proper Ram and Pipe sent them, with directions for putting up.

The expense, in most cases, is smaller than a well and pump.—Letters post-paid, will meet with prompt attention. When desired an experienced person will be sent to put them at a small additional expense. Lead and Iron Pipe for sale. These Rams are warranted in every respect. (Jan. 1852.)

FRUIT AND ORNAMENTAL TREES FOR SALE.

50,000 Peach Trees of one and two years growth, from the bud; 40,000 Apples; 5,000 Cherries; 5,000 Dwarf Pears, each containing all the most esteemed varieties, and of large size. Also, Quinces, Plums, Nectarines, Apricots, Almonds, Grapes, Raspberries, Gooseberries, Currants, Strawberries, &c., &c. 50,000 Silver and Ash-leaved Maple Seedlings of one years growth; 50,000 Apple Seedlings. The above will be sold on the most reasonable terms. Persons residing at the south and west should send their orders early. Catalogues with prices annexed will be sent to all applicants. ISAAC PULLEN, February, 1852—2 mos.) Hightstown, Mercer Co. N Jersey.

HENRY A. DREER'S

SEED AND HORTICULTURAL WAREHOUSE,

No. 59, Chesnut st., near 3d, Philadelphia.

Constantly on hand a large and well selected assortment of Garden, Field, Grass and Garden Seeds, Fruit Trees, Grape Vines, Roses, &c.

Horticultural Implements in great variety.

Catalogues forwarded on post paid application. (sep.-4)

COCHIN CHINA FOWLS FOR SALE.

THE subscriber offers for sale a few pairs of his fine stock of COCHIN CHINA FOWLS, of his own importation, warranted pure blood and true to their name. Orders for the same, post-paid, addressed to the subscriber, will receive due attention. CHARLES SAMPSON, West Roxbury, Mass.

TO FARMERS, AGRICULTURISTS AND GARDENERS.

CHAPPELL'S IMPROVED FERTILIZER—Substitute for Guano. The subscriber would call the attention of the Farmers of Pennsylvania to the chemical compound or manure, manufactured by him for the renovation of "worn-out lands," and known as "CHAPPELL'S IMPROVED FERTILIZER."

This article is composed of the same materials as are found by analysis in the ash of plants. It consists of a mixture (in proper proportions) of *Bi-Phosphate of Lime and Magnesia*, (or bones dissolved in Sulphuric Acid,) *Sulphates of Ammonia, Potash, Soda and Lime, Animal Charcoal, Silicates of Potash, Alumina and Magnesia*, and, as these constituents indicate, is intended to restore to the soil all the inorganic materials abstracted by vegetation. It has been ascertained that a soil containing a sufficient quantity of these salts, is always fertile; and their absence constitutes what is called "Worn-out Land." The analysis of rich soils shows a good supply, and poor land a deficiency.

The inorganic matter abstracted from the soil by the growth of different crops is the same, varying only in proportion; it is therefore evident, that if we supply to the soil a sufficient quantity of each material thus abstracted, we restore its fertility.

The correctness of the above has been fully sustained by the use of the Fertilizer, the last season. It has been used on poor land, and twenty-five to twenty-eight bushels of wheat obtained, with a superior crop of clover. As a top-dressing on wheat, eight bushels additional yield has been realized. On the spring crops of corn, oats and clover, the yield has been doubled. It has been used on the same field (as an experiment) with the best Peruvian Guano, both on corn and oats, and the yield has resulted in favor of the Fertilizer. The most respectable reference can be given of its value and effects on poor lands.

This article having been used with such favorable results, the manufacturer now offers it to agriculturists, with the full confidence that it will largely repay for the outlay, and that it is the cheapest manure they can use.

On very poor land, two barrels to the acre should be applied; on that in better condition, one and a half barrels. It is calculated, in using two barrels, you supply to the soil sufficient salts for a rotation. As a top-dressing, one barrel put on after a rain, or when the land is wet, and in all cases near the surface and not ploughed in, broad-cast and harrowed when practicable. The Ammonia in this preparation is a Sulphate and therefore not volatile as in Guano; the Bi-Phosphates and Sulphates being soluble, the rain dissolves them, and they thus saturate the soil with prepared food, ready for the nourishment of the plant; being rich in Sulphates, they are powerful absorbents of Ammonia from the atmosphere.

One fact peculiar to this compound is that such portion as may not be abstracted from the soil the first crop, remains in the ground until consumed by after vegetation. One barrel of Chappell's Improved Fertilizer contains as much *Phosphate of Lime* as is contained in 300 lbs. *Peruvian Guano*; therefore, by the application of two barrels (400 lbs.) to an acre, the ground is supplied with as much phosphate of lime as if 400 lbs. best *Peruvian Guano* had been used, and the Fertilizer is furnished at less than half the cost.

We add a few certificates. We could add others, but this mode of advertising is expensive—these should be sufficient to recommend the Fertilizer to the favorable notice of all farmers, desiring to improve their lands.

The following from gentlemen of high standing, testifies to the action of the Fertilizer, compared with Peruvian and Patagonian Guano. (From Com. T. A. C. Jones, Washington.)

NEAR PROSPECT HILL, VA., April 29, 1852.

P. Stockton Chappell—Dear Sir:—I suppose I am indebted to your kindness for a copy of the Baltimore Sun, of 17th March, containing notice of transfer of "South Baltimore Chemical Works" to you. I should have sooner acknowledged your attention, but was anxious to see a further development of the effects of your Fertilizer before I wrote. You may recollect that about a year ago I purchased the first Fertilizer, (a ton) with which I experimented with barley and corn, at the time of planting, and on wheat and grass as a top-dressing, all in comparison with Peruvian and Patagonian Guano, at equal cost. The effect on the barley was decidedly in favor of the Fertilizer beyond all question; while upon wheat, corn and grass, the difference was scarcely discernable on the growing crops. The ground on which the barley grew last year was seeded with Florence wheat on the 3d day of October, 1851; the ground was in the finest heart, 200 lbs. of Peruvian guano having been ploughed in after fallowing, but before seeding, which was done with Pennock's drill. The last dressing of guano was carefully sown broadcast transversely to the spring dressing of guano, and to the belt of the Fertilizer, through the barley, which separated the Peruvian and Patagonian guano, and the course of the drill crosses obliquely the belt of about sixty feet on which the Fertilizer was used about a year ago.

My wheat, like most wheat of the season, is but middling; my land was ploughed very deep, and, although it is high and rolling, the wheat has suffered severely from a redundancy of moisture; nevertheless, the wheat on the part on which the Fertilizer was used at the time of sowing the barley, in April, 1851, is not only higher but stronger, has a better color, and is in every respect more promising than the wheat on either side of it, notwithstanding the double dressing of guano to one of the Fertilizer. I have also ten acres of corn ground in wheat, on which your Fertilizer was used and sown in comparison with Peruvian guano and repeated at the time of sowing the wheat; the Fertilizer so far holds its own, and should I live to see it, I will give you particulars of the harvest.

The conclusions to which my mind is brought by the foregoing experiments are:—

First—That at an equal cost, with less labor, and far greater convenience in its application, your Fertilizer is fully equal to the average quality of Peruvian guano when first applied, and much more durable in its effects on after crops.

Secondly—That six hundred pounds (two barrels) of the Fertilizer, incorporated with the soil with the harrow before seeding or planting, is better than 300 pounds of Peruvian guano, to which the farmer is compelled to add, with very considerable labor, one and a half bushels gypsum, the cost of which will bring the guano, at the lowest rates, to

Whist cost of 600 lbs. fertilizer, \$7.50
Difference in favor of fertilizer, 6.00
Very respectfully, &c.
T. A. C. JONES.

BLOOMFIELD, Baltimore co., March 23d, 1851.

P. S. Chappell—Dear Sir:—In answer to your note of this date, asking for my experience in the use of your Fertilizer, I have but time to say, that two or three years ago I used but two or three barrels by way of experiment. Last year, I used upwards of seventy, and this year I will drop it on every hill of corn that I plant. My experience of its use on corn, in the hill, is most unquestionably and decidedly favorable.

Very respectfully, yours, &c.
RICHARD J. WORTHINGTON.

BALTO. COUNTY, March 23d, 1851.

P. S. Chappell, Esq.—Dear Sir:—I have used your Fertilizer in many ways upon both wheat and corn, with great success. Yours, respectfully,
EDW. W. WORTHINGTON.

(From Rev. Dr. Johns, Rector of Christ Church, Baltimore.)

BALTIMORE, July 2, 1851.

To Dr. P. S. Chappell—Dear Sir: I have just returned from a visit to Delaware, where I had an opportunity of observing the effects of your Agricultural Salts, in the production of wheat. They were applied to two fields—one of twenty acres—the other of twenty-eight. The former is uniformly good—on the latter, a part has been damaged by the growth of blue grass, but my impression is, the crop, on both, will be one-third greater than it would have been without the fertilizing article. The grain has not yet been threshed out, and consequently the above opinion rests merely on general observation of the crop immediately before harvest, but I am satisfied it will not be found incorrect. I think it very certain you will have several orders for the Salts, from the vicinity referred to.

Very respectfully,
Your friend and ob't serv't.
HENRY V. D. JOHNS.

Dr. Johns purchased, last fall, thirty barrels; as he used it as above on forty-nine acres, not more than 1½ barrels could have been applied to the acre.

I have used "Chappell's Fertilizer" upon potatoes with decided benefit, and am now fully satisfied that it is the best and cheapest manure I can use for that crop.

My first trial was alongside of stable and guano manure; the Salts gave me the best and largest potatoes. Where the Salts were used, the land was thin, and on a hill side; I used about 1½ bbls. to the acre in the furrow, with the usual attention. My crop fully came up to my expectations; the potatoes were large, and of superior quality, and the crop fully one-third greater than any of my neighbors, whose land was much richer than the piece of land I used for my potatoes. The same piece of land I have put down in wheat; the furrows can be seen distinctly some distance off—showing that the Fertilizer is still acting in the soil.

I shall use the Fertilizer this year on my potatoes, being fully satisfied that it is the cheapest and best manure that I can use for that crop. Several of my neighbors intend using the Fertilizer this year. I have paid great attention to the cultivation of potatoes for the Baltimore market for many years, and from my experience of two seasons with the Fertilizer, can recommend it with confidence upon that crop.

I will add that I sold my potatoes at \$1.06 per bushel; my neighbors sold at 96c—the difference in price owing to the difference in quality. Yours truly,
LARKIN YOUNG.
Balto. co., near Harrisonville, March 15.

Extract of letter from Dr. E. CHANDLER.
CHESTER COUNTY, Pa., May 25, 1852.

On the 20th of August, 1850, I applied 150 lbs. of your Fertilizer on a fourth of an acre of poor land, that had not been farmed for forty years previous to the application of the Fertilizer. I had the ground ploughed in April and strewn over it 10 bushels of lime, and about the same of ashes, and chip dirt from wood yard, harrowed it well with cultivator, and when I put on the Salts I sowed in Turnip Seed, Timothy and Clover and finished off with a brush. The crops of Turnips was 70 bushels, that at 25 cents brought \$17.50, and at the rate of \$70 per acre. Last summer (1851) the crop of good hay was 1,100 lbs., or at the rate of 2½ tons per acre, and now (May, 1852) the appearance of the grass on the same is far better than it was last year. Many persons have been to see this small, though satisfactory experiment, and are becoming convinced of the benefits of your Fertilizer.

Price—\$3 per barrel, and containing 300 lbs.
Pamphlets containing certificates can be obtained by addressing
P. STOCKTON CHAPPELL,
145 Lombard st. Baltimore.

July 1, 1852.
N. B. To avoid disappointment, farmers desirous of a supply for their Fall Crops should order early.

MANNY'S PATENT ADJUSTABLE REAPING AND MOWING MACHINES.

Manufactured at Waddam's Grove, Stephenson county, Illinois; and for sale by John Young, Harrisburg; Wm. Brady, Mt. Joy; M. P. Dill, Shiremanstown, and David Cockley, Lancaster, Pa.

Warranted to cut all kinds of Grain and Grass; also Flax, Millet, Corn in the field, and to gather Clover, Timothy and Flax Seed.

This machine will cut from ten to fifteen acres per day, with two horses, with one person to tend it when mowing and two persons when reaping. The grain is left on one side, in gables, for binding. The grass is spread uniformly over the ground. By the use of a double-edged sickle, the cutting apparatus is the most perfect—and which is connected by means of a joint so as to adjust itself to uneven ground, and by means of a lever at the driver's seat, it can be raised and lowered instantly and easily when moving along, to cut from one inch up to two feet from the ground. By a peculiar arrangement of the wheels, all side draft against the team is entirely avoided. The construction of the machine is simple, and by it rendered convenient and durable. Price \$135.00, half down, \$130.00 all down.

J. H. MANNY.

READ THE FOLLOWING TESTIMONIALS:

Jamesville, Wis., August 17, 1851.
If any one has either grain or grass, and wants to have it cut as it ought to be, he will consult his own interest, by examining Manny's Reaping and Mowing Machine. The simplicity of its construction, with its absence of unnecessary friction, renders it superior to any other machine of the kind I have ever seen.

Wm. Hobson,
Life member of the Royal Agricultural Society, England.

August, 1851.
We, citizens of Belvidere and vicinity, Boone county, Illinois, have minutely observed the operation of Manny's Reaping and Mowing Machine. This machine we have seen at work in wheat that was badly lodged, and with a very heavy growth of straw. The work was done perfectly clean, and with ease, for two horses. The same machine we have seen at work at mowing—it cuts the grass close to the ground and smoothly. It works admirably in cutting clover, and has demonstrated itself to our satisfaction, to be a complete labor saving machine.

Powell Haddock, L. T. Lord, H. J. Doolittle, Thomas Clark, L. Hurd, S. S. Stroud, Jerome Harper, B. Hawley, Isaac Stockwell, David Palmer, William Willis, T. T. M. Chamberlin, and many others.

August, 1851.
From an acquaintance with Manny's Reaping and Mowing Machine, and with other machines also with the scythe and cradle, we, the undersigned, can truly say, to our best knowledge, Manny's machine is not only unsurpassed, but unequalled for reaping and mowing; cutting grass close to the ground; also reaping grain in a complete manner, not leaving a single head standing, but leaving it all in good shape and even gables for binding.

George Carpenter, Erin, Stephenson co., Ill.; Abram Marcellus, L. B. Fisher, Thomas Rodebaugh, Charles Rust, Waddam's Grove, Stephenson co., Ill.; Ambrose Hill, Jones county, Iowa; John Humphrey, Geauga, Ohio.

MANNY'S REAPING AND MOWING MACHINE—We witnessed last week one of these Machines in operation on the Farm of Mr. Francis Foley, near this village, and were well pleased with the manner in which it performed. Though some of the grain was badly lodged, the machine done its work with admirable despatch and neatness—cutting the grain clean and leaving it in perfect gables, so as to cause no difficulty in binding. The advantages of this machine over all others heretofore in use, consists in its perfect adaptation to uneven ground—the convenient manner of elevating and depressing while moving along, cutting the grain at any height—a most admirable method of obviating all side draft, and the easy manner of changing from reaping to mowing; all the change necessary being merely to remove the platform on which the grain falls.—*Frederick Journal*, August, 1851.

Mr. J. H. Manny:—Your machines here fully answer the purpose; far surpassing McCormick's, Hussey's, and all others I have seen or heard of.
Lewisburg, Union co., Pa.
CYRUS DRIESBACH.

TO FARMERS—SALINE FERTILIZER.

This preparation is designed to furnish the soil the various mineral or inorganic materials abstracted from it by plants in the process of vegetation.

It contains a large proportion of the salts of Potash, Soda and Ammonia, combined with Bi-Phosphate of Lime, Animal Charcoal, and other fertilizing matter; the whole forming a highly concentrated manure.

In thus offering a new article to the attention of farmers, the relative value of which remains to be tested by experience, it is desired not to venture upon any assertions respecting it, calculated to excite expectations, which perhaps might not be realized; knowing, however, that the principal constituents of this compound have been proved to be highly valuable separately, it is confidently believed that their combination in proper proportions in the "Saline Fertilizer" will form an excellent manure.

DIRECTIONS FOR USE.

The Fertilizer should be applied at the rate of two barrels to the acre, and spread broad-cast on the surface. If, on opening the barrels, the salts should be found adhering together in lumps, they should be broken, say with the back of a

shovel, upon a floor or smooth surface, and if convenient, a little good dry mould may be added, and well mixed before spreading.

For Wheat or rye, one barrel per acre may be used before sowing, and lightly harrowed in, and the other applied as a top dressing early in the spring, at the commencement of the first thaw.

Upon Grass it should be sown broad-cast, and, if possible, when the ground is wet, or when there is a probability of rain, to dissolve the fertilizing salts; generally late in the fall or early in the spring, will be found to answer best.

Upon Corn, it would perhaps be advisable to apply one barrel in the hill, and one broad-cast.

If added to the manure or compost pile, the Fertilizer will doubtless increase greatly the efficacy of the mixture.

The experience of agriculturists will probably suggest other modes of employing it, as soon as they become satisfied of its utility. It should not, however, in any case, be mixed with quick-lime which will cause a loss of Ammonia, nor should it be buried deeply in the soil.

Price, \$2.50 per barrel.

Manufactured and for sale by

CARTER & SCATTERGOOD,

June, 1852) Office, 81 Arch st., Philadelphia.

PUMPS, FIRE ENGINES, CAST IRON FOUNDRIES, &c., &c.

The subscriber manufactures Double-acting Lift and Force Pumps, (perpendicular and horizontal,) of any size or capacity, which from their simple construction are well calculated for Factories, Mines, Railway Water Stations, Tanneries, Breweries, Irrigation, Hydropathic establishments, or any other situation where water is required.

VILLAGE AND FACTORY FIRE ENGINES, Having a double-acting force pump. They are light, easily handled and worked by few men.

Cistern and Well Pumps, for in or out doors.

Garden Engines, with a small size double acting lift and force pump. Arranged with or without suction. They are so adjusted that one person can wheel them from place to place, and are well calculated for agricultural and horticultural purposes.

Ornamental cast-iron Fountains, of various styles and prices. Copper Rivetted Hose of all sizes; Hose Couplings, Stop cocks, Lead and cast-iron pipes, &c.

I am now ready to receive orders and build Steam Engines from 3 to 15 horse power, portable or stationary, horizontal or perpendicular. I shall build them in as simple a style as possible, combined with strength and sure of getting at every part, and adapted for any purpose required. When an engine is required for raising water of any amount, I can adjust the pumps in a compact form easily got at, and disconnected from the engine, when not required for pumping. In many situations steam is the most profitable mode of raising water, as the engine can be used for other purposes to advantage.

Also prepared to receive orders or give information upon Lathes, Planers, Presses, Shafting, Pulleys, and machinist tools in general, from the firm of Messrs. G. Snow & Co., Meriden, Conn.

Any communications by mail will have immediate attention.

G. B. FARNAM, 34 Cliff st., near Fulton, N. Y.

SHANGHAES!

The subscribers take this method of informing the citizens of Lancaster and vicinity that they have on hand and for sale a large and beautiful stock of Shanghai fowls, the superiority and good qualities of which cannot be surpassed by any in the country. Since the first importation of these fowls from Shanghai, China, they are becoming very generally known, particularly in the New England States, and are eagerly sought after for their general good qualities, good laying properties and early maturity, which render them far superior to any other fowl in America.

These fowls can be seen at G. W. Arnold's, in South Duke st., opposite the public schools, or by calling on T. B. Gould, at Cooper's hotel.
T. B. GOULD,
June, 1852.) G. W. ARNOLD.

J. & D. FELLEBAUM.

Manufacturers of all kinds of Steam Engines and Boilers, Slide and Hand Lathes, Mill and Press Screws of all sizes, &c.
West Chestnut st., Lancaster, Pa.

We also furnish castings of the best materials, and at the most reasonable prices. Having had fifteen years practical experience in the manufacture of various kinds of machinery and iron work, we are able to warrant our work to give satisfaction to all who may favor us with their patronage.
[June, 1852.]

GUANO WARE HOUSE.

No. 54 South Wharves, Below Walnut Street.
Peruvian and Patagonia Guano, for sale in large or small quantities, in barrels and bags, on reasonable terms.

JOSEPH L. JONES,

No. 55, South Wharves, Philadelphia.

SHANGHAE & COCHIN CHINA FOWLS

For Sale.

The subscriber has on hand a number of young Cochin China & Shanghai Fowls of the latest importation, which he will dispose of at fair prices on post paid application, addressed to

PHILIP HUNT,

West Phila., Chestnut st., 2nd door West of Pub. School House

thought, however fanciful, is pleasing in connection with the memory of one whose life has been successfully devoted to the creation of beauty all around.—How these daguerreotypes may have filled all space, and eternity itself, with his beautiful creations!

And now the trite question, usually so easily answered, when one has gone who occupied a large space in the public mind, will be heard, "*Who shall fill his place?*" The answer to this inquiry has already been suggested: *His place is already filled.*—The niche in Fame's Temple for him who should develop a new world, in the pursuits of "Rural Life and Rural Taste" in America, like that of a discoverer of a continent, can contain but one statue.

In early manhood he has fallen, but not, indeed, before he had finished a *life work*, and we who lament what seems at first, his *untimely* fate, should remember that true life is not measured by vibrations of the pendulum, and that "his life is long which answers life's great end," whether it be drawn out to three-score years and ten, or ended, like his, when scarcely half those years had passed away.

And now, what eulogy for the dead? what monument to the memory of our friend departed? This work is also finished! Throughout the length and breadth of our country, wherever the air is fragrant with the perfume of cherished flowers, or murmurs through cultivated groves and gardens, it breathes the praises of him whose spirit, more than any other, has refined the taste, and whose knowledge guided the hand, of the cultivator, and the winds which sweep over our forests—"those grand old woods" of oak and pine, and hemlock—already celebrate the fame of him who boldly asserted their right to the first rank in the world's catalogue of the majestic works of nature. His monument! Is it not already on every hill-top and in every valley, in every town and every village, where Gothic art expresses, with its vertical lines, in lofty towers and pointed arches, aspiring Hope and all-embracing Love—where the encircling, overspreading, all-uniting dome of Roman architecture, illustrates, in public halls and Capitols, the sentiments of patriotism and unity?

He has indeed "erected a monument more enduring than brass." His memory! Is it not already beautifully entwined with the vine that encircles the stately columns on the banks of our noble rivers, or hangs from the humble porch of the tree-sheltered cottage? Who among us has built him a house, or planted a vineyard, or reared a rare flower, uninfluenced by his taste? Who, in town or country, does not cherish an abiding sentiment of gratitude and love towards one whose life it was to refine and elevate the hearts of men, turning them from gain and worldliness to the appreciation of the beautiful in the works of Him who has not in vain, for his creatures, spread out the landscape, and made the woods vocal, and the air fragrant? No; of all who have thus suddenly perished,

"He will not float upon his watery bier
Unwept."

With no design to sketch his every-day life, or coldly to analyze his character as an author or an artist, but under the first impulse of the mingled feelings of sadness, of affection, of bereavement, which must find a wide sympathy throughout our country, as his melancholy fate becomes known, this notice of our departed friend has been written.

"HEAVEN KEEP HIS MEMORY GREEN."

FARMERS' SONS had better learn to hold the plow and feed the pigs, than to measure tape and count buttons.

Original Communications

In-and-Breeding of Fowls.

MR. EDITOR:—Having recently read an article in the July No. of your valuable Journal, on the "improvement of the dunghill fowl," by E. Rogers, and as it seems to involve the question of "in-and-in," and "cross breeding," I wish to present a few thoughts on the subject.

It is admitted that many examples have occurred which prove the good results of cross breeding. Probably the same will be granted of in-and-in breeding; But there is a notion prevalent that the latter tends, after a time, to degeneracy. That relationship, *per se*, produces degeneracy, is, I think, countenanced neither by philosophy nor experiment. True, relations are apt to have the same characteristics, and if these are similar in both parents, they are likely to be transmitted more strongly marked to the progeny. But this is true whether related by the laws of consanguinity or not; hence, it cannot be ascribed legitimately to relationship. This law is in accordance with the axiom that "like produces like;" but that mere blood relationship should tend to degeneracy, is contrary to every established principle of philosophy.

But, says an objector, Mr. A. tried in-and-in breeding and his stock degenerated! Possibly, but were there no causes for it but the relationship? On that mode of reasoning, cross-breeding is also pernicious, for numerous instances occur of degenerate progeny from injudicious crossing. The proper qualifications for a successful breeder are very rare. A thorough knowledge of the good and bad points of animals, sound judgment, great care and experience are indispensable requisites.

If facts prove that in-and-in breeding tends to degeneracy, they also prove the reverse. "In some of the English flocks and herds, close in-and-in breeding has been practiced with the best results for near a century."

I have a striking case in my own knowledge: the Principal of this institute, J. Wilkinson, has a breed of swine unrivalled perhaps in the whole country. They have taken premiums at the principal fairs in some 6 or 7 States, and always command the highest prices. This breed he produced by crossing a Leicester boar with a Berkshire sow, some 15 years since, and by great care and judicious management he has brought them to their present almost perfect state.

If Mr. R. crossed his fowls with a better stock, there is a reason for their improvement. But if the stock he introduced was not better than the old, I can not but regard it as a waste of time and money. The same care and attention devoted to the improvement of the old stock, if they were equally good with the introduced one, would have produced the same good results.

He says "the oldest chicken in the flock was not more than seven months." This is a sufficient reason to account for their increased laying qualities, as it is allowed by all, young hens lay better than old ones.

To prove the degeneracy of the dunghill fowls, he contends "they were at one time equal in every respect to those for which such enormous prices are now asked." The plain English of this, is that all the different breeds of fowls came from the same original stock. If this be true, the diminutive Bantam and the gigantic Chittagong are of the same origin. The most reliable authors on the subject, consider the dunghill fowl either a cross from several native kinds or a descendant of the Jungle fowl of India; that the small Bankiva fowl is the type of the Bantam, and the great fowl of St. Jago and Sumatra that of the larger breeds.

If the dunghill fowl be a cross, we know nothing of the size of the produced stock; hence, we cannot say it has degenerated. If, on the other hand, it be a descendant of the Jungle fowl of India, it has improved in size and laying qualities; as the latter is much smaller than the dunghill fowl, and it is well known tame fowls are far better layers than wild ones. I am surprised, however, that Mr. R. would assert that farmer's fowls generally fare well and are well provided for.

How many farmers provide good shelter for their fowls in winter, free from filth and vermin? In probably a majority of cases they have no houses that are devoted exclusively to poultry, but they are allowed to creep into stables, pig-pens and cart-sheds, or perhaps perch in the trees.

If they happen to have what is called a "chicken-house," the manure is allowed to accumulate until it becomes so filthy and so full of vermin that no decent fowl will enter it. They are seldom furnished with sufficient food at proper periods.

Young and old are allowed to breed indiscriminately, without any regard to the immaturity of the one or the decrepit state of the other. These and numerous other like causes are sufficient to account for occasional, or even frequent degeneracy. When the proper care and attention were paid to them, I have known stocks of chickens kept for many years which retained their size and laying qualities undiminished.

It is said many animals in their primitive state mate brother with sister,—(whether this be true with the wild fowls is more than I can say):—the instinct given to the creature by an allwise Creator, could hardly so far err as to lead it to pursue a course calculated to produce a degeneracy of the species. If Adam and Eve are progenitors of the human race, their descendants, to fulfil the divine command, "increase and multiply," even obliged to risk the consequences of that law, the results of which are "lunacy, idleness and insanity."

I know of a settlement not fifty miles from Lancaster, composed of some half dozen families, all of whom are related, and most of whom marry cousins, and this has probably continued for several generations. But no symptoms are yet manifest of *idiocy* or *insanity*. On the contrary, they are remarkably intelligent, possessing strong, active minds and well developed bodies. I have not briefly given the result of my investigation of this subject. I should be glad to see the philosophy that will explain the cause of degeneracy of in-and-in breeding. I consider *facts*, where a variety of modifying causes are involved, a most uncertain guide. Every system of quackery and notable nostrum have thousands of facts to attest their efficacy.

L. H. GAUSE.

Mt. Airy Ag. Institute, August 3d, 1852.

How to Manage a Worn Out Farm.

MR. EDITOR:—About seven years since I took possession of the farm on which I at present reside. At that time its condition was anything else than promising, for in addition to the fact that weeds and briars abounded—fence rows were in bad order, and the buildings scarcely tenable; the land was to all appearances thoroughly impoverished. Being a young man, but newly married, most of my friends remonstrated strongly against my taking the farm. They pointed out all the disadvantages attending the step, and every one predicted that I would starve before the farm would produce as much as my family and cattle would consume. I must confess the picture drawn by my dear friends was not the most encouraging, so that I began to have some misgivings myself, and concluded before I made a final determination, to hold a consultation with my wife, in whose good sense and judgment I placed as much confidence as in my own. Accordingly, one evening I broached the subject to her, fairly and honestly setting forth the advantages and disadvantages which would be likely to follow. Mrs. L. was a farmer's daughter, and a good farmer's daughter at that. She was one of those young ladies, whose sense of duty always led her to estimate the *useful* more highly than the ornamental. She was industrious and frugal, and withal of a thoughtful and observant turn of mind. The loss of her mother at an early age threw the whole management of her father's large household upon her. She improved the opportunity thus offered, or rather pressed upon her, not only by rendering herself familiar with the domestic affairs of her father's house, but also from the fact of frequent conversations with him in relation to his farming operations, acquired a pretty good knowledge of the manner in which he conducted them. She was therefore, no bad counsellor; but one whose opinion I preferred infinitely to many of those friendly relations who are always more liberal with their advice than their money.

After stating the case fairly to her, she quietly remarked, "Well, that the farm you think of renting is out of order, may not be denied. The house is not a very comfortable one, but with a little of your assistance I will engage to render it habitable at least. A little economy and good management will enable me to supply our own table with vegetables, and sell enough beside to provide such matters as we may need to render our situation more pleasant. If you will manage the farm, I'll take care of the house, and if you will give heed to one of my father's favorite sayings, "*plow deep*," I think we shall be able to make both ends meet." "Enough said," was my only reply. The farm was rented—and as much stock and as many implements purchased as our little capital would allow. With hopeful hearts, my confident little wife and myself, took possession of the old farm.

From a small manure heap (left by the former tenant) we gave the garden a good dressing, and afterwards a thorough plowing, my wife occasionally admonishing me to "*plow deep*." She then took possession of it (my remonstrances to the contrary notwithstanding) and very soon it gave satisfactory evidence of her skill and tastes.

But now came the "tug of war." Field plowing was to be done for oats, corn and potatoes; but where was the manure to come from. Our little stock of money was barely sufficient to purchase the actual necessities of life for ourselves and stock, until the garden and fields would produce their crops; so that not a dollar was left for the purchase of manure. I had not thought of this before, and for a moment I regretted the step we had taken. With a heavy heart I mentioned my new troubles to my wife, who with a cheerful tone remarked, "*Plow deep*," this year, George, and let us see the result." Reassured by her confident manner, I geared my horses—three fine, stout fellows—and commenced plowing. The ground was in fine condition, and remembering Mrs. L.'s admonition, I set my coulter *deep*. Away we went, and after a furrow or two, I stopped to examine the soil I had turned up. Much to my surprise, and I assure you, sincere pleasure, I observed that it differed materially in appearance, from that turned up by the former tenant. There was a mystery about this, that puzzled me for a moment; but recollecting that I plowed some four or five inches deeper than my predecessor had done, I began to see the wisdom of my wife's advice, to "*plow deep*." I had found a manure heap. My little knowledge of soils, (for I had been an attentive reader of the only Agricultural Journal I then knew of, the Albany Cultivator,) satisfied me of this fact. Every round I made, my heart grew lighter, until, when at noon, I returned home, I felt as well satisfied that I should have good crops, as any of my neighbors who had applied their hundreds of loads of manure.

The oats were sown, and the corn and potatoes planted. My neighbors looked on and smiled at my verdancy, in hoping to realize anything from that soil without manure, and I verily believe I too should have doubted, but for the hopeful spirit of my wife. She was always cheerful and happy. Busy as a bee the livelong day, the house hourly grew more comfortable and snug. The cows yielded a good supply of milk, which her ready hand turned to first-rate butter and cheese. The garden yielded most excellent vegetables, which with the butter and cheese were readily disposed for cash at our county town. The chickens too acknowledged her fostering care, and in fact every thing she turned her hand to appeared to prosper.

With an anxious heart, however, I looked forward to the time when I should be able to judge of the character of my growing field crops. The season was good, and I soon had the pleasure of seeing them as flourishing as any of my neighbors, and when harvested, they proved to be equally good. But this could not last long. I had strong faith in the virtues of deep plowing now; but common sense taught me that the time must come when, without some kind of manure, I should be worse off than ever. My manure heap was increasing, but not rapidly enough to furnish the supply necessary. My wheat ground required it all and more than all; and I knew that every fork full I could make during the winter would be insufficient for my corn ground in the spring. At this juncture, my agricultural paper came in as an adviser. I had read with much care and interest an article on Clover, as a fertilizer, when turned under in its green state, and at once resolved to *try* it, as I had done the deep plowing. Clover seed was purchased, and sown among the wheat late in February, and as soon after harvest as I found it to be in what I considered its rankest stage of growth, I turned it under, keeping in mind my wife's motto, *plow deep*. I again put it in wheat, and the following season I harvested a fine crop. I do not now remember the average yield, but know that it was nearly thirty bushels to the acre. Thus far things looked so encouraging that I began to think of purchasing the farm, and did so the ensuing fall, at a very low rate. As the extent of my farming operations enlarged, so did the number of my stock, and as a consequence, the manure heap grew also. But this latter fact, did not deter me from pursuing the plan I had originally adopted of *plowing deep and turning in green clover*.

In concluding this hasty sketch, I would remark that it was prepared not with any desire on my part either to extol the merits of my better half, or claim originality for the method pursued; but simply to show that it is not so difficult a method, to restore what is generally termed *worn out lands*, as many suppose. By *deep plowing and green manuring*, I

have brought my farm from a state of almost barrenness, to what may be considered a fair degree of fertility. I apply, it is true, all the manure I can make (and I assure you it is not a little now,) but do it in connection with the clover, and the value of the system may be estimated by the fact, that the average yield per acre of corn for the last two years, has been sixty-five bushels, and of wheat twenty-five bushels, while my other crops are equally good. If the same success attends my efforts which has thus far followed them, I shall in two years have my farm paid for, and as a closing item I will mention, that the price paid for it was twenty-four dollars, and I have refused seventy-five dollars an acre for it within the last six months.

G. L.

Franklin Co., Aug. 9, 1852.

[We know the writer of the above, well, and testify to the truth of all. His farm, which contains a little over one hundred acres, is rapidly becoming one of the most desirable in the county. The example of his wife is one that might be profitably followed by thousands of farmers daughters. Her observation, industry and tact were powerful aids to our young friend in his struggle for a competency. If young ladies would but properly estimate the advantages which the economical housekeeper possesses over the improvident one, we should perhaps find fewer failures in business, and a vast deal more of real happiness in every community. Let it not be supposed that because Mrs. L. is familiar with the practical duties of the dairy and garden, and manages her household matters with so much neatness and profit, that her accomplishments end here. Far from it. She is just as agreeable in the parlor as she is handy in the kitchen, and is what we justly consider a model farmer's wife.—Ed.]

Summer Treatment of Fruit Trees.

MR. EDITOR:—As usual, at this season, I have lately witnessed and heard of so many acts of malfeasance committed against the particular objects of my care and sympathy, (if you will pass this term in the case,) that I feel constrained to take up my rusted pen and, despite the heat and wearisomeness of the season, endeavor to save some that might otherwise become victims of a wretched fate.

These ill-used friends of mine are "Fruit Trees." Poor trees! unable to resist or even to complain, yet ever returning good for evil, they need and deserve the intercessive voice of a friend.

In their natural branchy dress, they don't look tidy before eyes accustomed to the trim trees of the forest, which have been choked out of their lower branches by each other's shade, and so they must be lopped of leaves and limbs, and that, generally, in the heat of the dog-days; because it is then that they are most conspicuously and rebelliously growing.

But this killing is all done in kindness. A lady

friend engaged a man to dig a quarter in her garden. He *kindly* undertook to do more, to trim up some fine young cherry and plum trees with handsome heads at half standard height in their third year's growth, and ready to bear in another season. The knife soon did the work, and the vexation of the owner may be imagined at finding nothing left but a plume of leaves at the summit of the central branch. The trees cannot recover in less than four years.

A gentleman, who had planted an orchard four years ago, told me lately, that although he gave his trees the *closest* care, his neighbor's trees, planted the same season, and receiving no attention, save that they were protected from cattle, had exceeded his in growth treble, and were now strong, branchy, and full of fruit. His *kindest* care—so it turned out—had been to trim off all leaves and shoots from the stems as they appeared, in order "to strengthen the top;" this top, too, was formed at 8 feet from the ground. It seemed strange that his neighbor's trees naturally grew erect while he found it impossible to keep his from lopping down or fretting on the stakes.

A friend planted out a suite of choice fruits last spring. All the trees were growing well, many of them, however, as is usual, having their strongest shoots near the ground; when a neighbor came along, a man of years and wisdom, and strongly advised that these should by all means be cut off or the trees "would not form a top." My friend yielded and suffered his trees, while just handsomely struggling into vigorous life, to be deprived of half their vital organs.

All this is well-meant, but ignorantly done. I don't know whether I can prove the fault in a paragraph; but I would urge those who wish well to their trees to pursue the subject, by reference to some especial treatise. If one knows and sees clearly *how* and *why* and *when* to do a thing, it can be both easily and well-done; but working blindly, one works loathingly. In the case of fruit trees especially, this not knowing *how*, keeps many from doing anything at all, even from planting,—alas!

I remember once being invited to look at some trees received from a great distance, great varieties and great pets. I placed thumb and finger on the stem of one of them while looking at it, and the owner hastened to inform me that he had been told by the nursery-man "not to touch them the first summer." "But not meaning it in a literal sense," said I. "I don't know," he answered, that is the direction I got, and I wish to observe it closely. This was not very explicit instruction, and I am afraid I can be but little more so in the few more sentences that I can claim.

A tree taken from the ground will soon evaporate into a dry stick, if left exposed. But if the roots are healthy and not injured by frost, and if they are buried in damp earth, they will imbibe moisture enough to supply this evaporation (provided the stem is

not inordinately long,) as we all know that water does not run freely up hill. The first warmth of spring causes the expansion of leaves, and as soon as this occurs there is a rapid evaporation, proportionate to the number and size of the leaves. To meet this drain, new roots issue, and busily supply watery sap. The quantity thus drawn from the earth and given off from the leaves is immense. At this stage the roots and leaves reciprocally increase each other—strong roots collect much sap, requiring many leaves to digest it. While luxuriant leaves digest sap fast, and pour downwards under the bulk a thick stream of prepared sap, which depositing wood-forming matter even to the ends of the roots, elongates and increases them.

When we transplant a tree we necessarily cut off the ends of the roots, and our first care must be to re-establish them. Every leaf should be encouraged during the first summer, for it will feed a root, and the nearer the leaves to the roots, the more readily will be the communication, and the more rapidly will the root heal, therefrom and ramify. If we find the sluggish sap unwilling to climb as high up the dry pipes of the stem as we could wish, we can shade the stem with straw and pinch off the ends (no more) of the sprouts we would have checked. We must have the roots in a good roomy bed of mold, and retain moisture and suppress robbing weeds by a thick and wide mulching. We shall then have a strong set of roots, capable next season of supplying sap to a naked stem 6 feet high, if necessity obliges us to the disadvantage of making it so high.

The second (August) growth of a young tree is usually the best, if the culture is good.

Newly planted trees then should be pruned in the ensuing March just as the buds are expanding. Older trees may be pruned at midsummer with advantage, and over luxuriant trees should be pruned in August or September when just about closing their growth. Plum trees and dwarf pear trees, if too rank in growth, are readily brought into bearing by root pruning at this season, but other fruits have less vitality of root. Hundreds of orchards have been unwittingly destroyed by summer fallowing for a crop of winter grain.

I must close this imperfectly, for want of room.

The evergreen described by A. McL. W. is no doubt the *Taxus Canadensis*, (American Yew or Ground Hemlock,) and is well adapted to the purposes he suggests.

W. G. W.

Has Modern Horticulture Improved Our Fruits? (QUERY FOR THE NEW SCHOOL.)

MR. EDITOR:—I was much pleased with the remarks of Mr. Garber, in a former number of the Journal in relation to the culture of fruit thirty years since, as compared with that of the present day. Although not a professed horticulturist, I have devoted considerable attention to fruit trees for

twenty years past, and my observation and experience prove satisfactorily to my mind at least, that the system of culture pursued at present has no advantages over that followed twenty years ago. We have, it is true, a much greater variety of peaches, apples, pears, &c., now, than then. But we have not as thrifty trees, nor as certain crops of fruit. To what cause this is to be attributed, I do not know that I can furnish a satisfactory answer; but it has occurred to me that grafting and budding, while they may serve to perpetuate particular varieties with certainty, also, serve to lessen the longevity of the trees. Twenty years ago, and as many years further back as you please, but little was known of these methods of producing a continuance of particular kinds of fruit. We never thought of cultivation about our peach or apple trees. Our orchards were not pruned as carefully and closely then as now; and yet we had what we considered heavy crops of fair fruit. The man who would have followed the plan recommended by some of our most celebrated horticulturists, would have been laughed at for his pains, and yet I am seriously inclined to doubt whether the old fashioned method was not the best after all. To show the grounds of my belief, look at the size and bearing qualities of what I shall term the old fashioned peach tree. It never knew what pruning was—its roots were never cut to pieces with the spade or hoe, special manures were never applied nor indeed any manure, and yet it went on rejoicing in its strength, spreading its limbs wider from year to year, until it stood a giant, compared with the sickly specimens of the present day. It seemed to say, "let me alone," and in return for the forbearance to tamper with its strength, yielded us annually a rich harvest of fruit. Have the seasons changed—has the soil lost its fruit tree producing qualities, or have modern improvements turned out to be injurious instead of useful?

I very much fear, Mr. Editor, that the beautifully written essays on fruit culture which have from time appeared, have done little actual good, but are producing a vast deal of harm. It may be argued that if our trees are not so long-lived, or our fruit crops so abundant; that these disadvantages are compensated for by the superior size of many varieties of peaches, apples, &c., now grown. While the generality of people prefer a large apple to a small one, to look at; but few will not give the latter the preference when called to taste. Excessive feeding will sometimes produce fat upon the ribs of the veriest land-pike, and the same system in horticulture may result in fruit of increased size; but who that has ever eaten the wild strawberry is able to detect the slightest similarity in flavor between it and the overgrown Hovey, the British Queen, or any other of the boasted mammoth varieties. While the one is rich in the peculiar aroma of the strawberry, the other is almost

wholly destitute of it. The native strawberry possesses that delightful flavor which commends it to the palate of almost everyone, while Hovey's seedling is a large insipid fruit, beautiful it is true; but valuable only on account of its size and beauty.

I am perfectly satisfied of one thing, which is this: that modern horticulture is competent to produce fruits of increased size; but this enlargement is produced at the expense of the flavor of the fruit and the life of the tree. Now, whether the purchase is too dear, is a question. I do not pretend to speak for others; but for myself I say, give me the medium sized, well flavored fruit, and let those who prefer it take the large but more insipid.

I presume, Mr. Editor, that you sometimes get hold of the large green apples brought from the north during the winter season, and sold at enormous prices to our people. I do not know the name; but I do know that more tasteless apples I have never met with. Yet their size secures their sale, and the same may be said of nearly all the excessively large fruits.

If then, in conclusion, modern horticulture is able to produce fruits only at the expense of their flavor—the longevity of the trees, and the certainty of the crops, it may be asked of what benefit has all its discoveries been? The old fashioned fruit grower will answer, none! while the new fashioned ones will claim for it everything. I shall, however, be pleased to hear from any of the advocates of the modern system who may think proper to sustain its claims.

E. F. THOMPSON.

Juniata County.

In this age of horticultural progress, friend T. you will scarcely find many supporters of your doctrine. Admitting your position that budding and grafting have the effect of shortening the lives of our fruit trees, we think the following advantages enumerated by Downing will more than meet your objections:

After having obtained a new and choice kind of fruit, which in our hands is perhaps only a single tree, and which, as we have already shown, seldom produces the same from seed, the next inquiry is how to continue this variety in existence, and how to increase and extend it, so that other gardens and countries may possess it as well as ourselves. This leads us to the subject of the propagation of fruit trees, or the continuation of varieties by grafting and budding.

The uses of grafting, and budding, as applied to fruit trees, may be briefly stated as follows:

1. The rapid increase or propagation of valuable sorts of fruit not easily raised by seeds, or cuttings, as in the case with nearly all varieties.

2. To renew or alter the heads of trees, partially or fully grown, producing in two or three years, by heading-in and grafting, a new head, bearing the finest fruit, on a formerly worthless tree.

3. To render certain foreign and delicate sorts of fruit more hardy by grafting them on robust stocks of the same species native to the country, as the foreign grape on the native. And to produce fine fruit in

climates or situations not naturally favorable by grafting on another species more hardy; as in a cool climate and damp strong soil, by working the Peach on the Plum.

4. To render dwarf certain kinds of fruit, by grafting them on suitable stocks of slower growth, as in the case of the Pear on the Quince, the Apple on the paradise stock, &c.

5. By grafting several kinds on the same tree, to be able to have a succession of fruit, from early to late, in a small garden.

6. To hasten the bearing of seedling varieties of fruit, or of such as are a long time in producing fruit, by grafting them on the branches of full grown or mature bearing trees. Thus a seedling pear, which would not produce fruit on its own root in a dozen years, will generally begin to bear the third or fourth year, if grafted on the extremity of the bearing branches of a mature tree.

The advantages of budding fruit trees, compared with grafting, are so considerable, that in this country it is ten times as much practised. These are, first, the great rapidity with which it is performed; a skillful budder, with a clever boy following him to tie the buds, being able to work from a thousand to twelve hundred young nursery stocks in a day. 2d. The more convenient season at which it is performed, in all countries where a short spring crowds garden labors within a small space. 3d. Being able to perform the operation without injuring the stock in case of failure, which is always more or less the case in stocks headed down for grafting. 4th. The opportunity which it affords, when performed in good season, of repeating the trial on the same stock. To these we may add that budding is universally preferred here for all stone fruits, such as Peaches, Apricots, and the like, as these require extra skill in grafting, but are budded with great ease.

Irrigation with the Siphon.

MR. EDITOR:—In a recent number of your Journal, which I read with pleasure, when it comes in my way, I found an article on a mode of irrigating plants, which the writer claims as original. I take the liberty of copying the following from the Port Folio, vol. 4 for 1817, published in Philadelphia by W. Harrison Hall. The article is larger than necessary to be copied by me, and perhaps you can refer to the original article, which is accompanied by two wood cuts.

Philadelphia, August 19, 1852.

"I selected two water melon vines near each other, in soil of the same appearance, one of them being considerably more flourishing than the other. I made my experiment upon the declining vine; by twisting gently a cotton siphon made of candle wick, proportioned to the stem of the plant: I then elevated a pot of water above the surface of the ground, covering it from the vehement heat of the sun with a piece of plank. Having then wetted my cotton siphon in order to communicate motion to the fluid upon the fountain principle, I tied a small stone to one end as a weight to sink it when immersed in the water; and dropping this into the pot, I passed the other end down into the earth, by scratching the mould gently away from the root, and giving the siphon a spiral direction round it, covered it slightly with the replaced mould."

"In a short time the earth became moderately

moistened, a few inches round the root of the plant, in which condition it continued throughout the heat of the day, without parching or scalding; the siphon supplied the demand of the plant, (and no more) a cool succession took place through the effects of evaporation; and in a few days the vine became flourishing, and outgrew its neighbors."

I have repeatedly tried this experiment with good effect, and think it capable of extension in a garden or nursery by placing troughs the whole length of a bed."

[If our correspondent will carefully re-peruse the article in our last, which he asserts is claimed as original, by the writer, he will find that no such claim is advanced. We prepared the article ourselves, from facts furnished by our friend in Lancaster, and although an entirely new experiment to him as well as ourselves, and consequently original with him, nothing more was claimed for it than the simple fact that the experiment had been tried, and was successful. We, however, thank our correspondent for the attention to the subject, and as he appears to be pretty well "booked up," shall be pleased to hear from him more frequently.—Ed.]

Smut in Wheat.

To know what an evil is, is the first and essential step to accomplish its cure. Smut is the diseased residuum of a totally destroyed grain of wheat, barley, oats or corn:—and the disease may be communicated to any of these sound grains, by bringing the smut in contact with them, and if it be already in contact with them, the simple remedy is to *wash it off*. With regard to all other remedies which we have tried, our conclusion is, that their merit consists in how much *washing* is to be done in their application. The destroyed grain of wheat in its original shape, the blasted head of barley or oats, and the black fungus matter of corn are all smut, each of its kind, and each will be effectually communicated by contact, to its kind. Let the experiment be tried by rubbing the sound grain in smut, and it will be found that it may be so effectually done, as to cause a product of more than one half smut; whilst a portion of the same parcel of grain, thus prepared, may be so cleansed by washing, as to make a product entirely free from the disease. We have no sympathy for the farmer who complains of an injury to his crop by smut;—the fault is his own; and much less for him who complains of the trouble of preparing clean seed.

FREDK. WATTS.

Carlisle, 12th June, 1852.

[While on the subject of smut, we present a fact communicated to us a few days since, which may prove interesting to some of our readers, and of which we should like to have an explanation. On the farm of Joel Lightner, sen., in Paradise twp., Lancaster county, is a large cedar tree, which appears to exert a singular influence upon the wheat grown in the field

in which it stands. While, on a number of occasions, the wheat in other parts of the field was much injured by smut, a strip, extending in a south-eastern direction from the tree, through the whole field, and just about the width of the tree was entirely free from it. Will some of our correspondents explain this singular effect? Ed.]

A REPLY.

A reply to the argument advanced before the Union Township Agricultural Club, on the transmutation of Wheat into Cheat.

MR. PRESIDENT, I will not attempt to analyse the different positions assumed by gentlemen on the other side of the question, or reply individually to the deductions they have arrived at from carefully observing the freaks of this common weed. The facts presented are no less varied and mysterious than are daily presented, in almost every department of the vegetable kingdom.

The white clover appears under circumstances far more mysterious and unexplainable than any other plant on our farms. It is a native of Southern Europe, yet it is spoken of in Watson's *Annals* "as *tinging the roadsides as a natural production*" as early as 1719. I have seen it spring up and cover the ground the third year after the forest had been cleared off, where not a seed of any kind had ever been sowed by the hand of man. In the South, another variety, called the *yellow* or *hop clover*, (*Trifolium procumbens*) is almost as abundant as our white clover, and appears quite as problematical. It first made its appearance in South Carolina about 1800; in a few years it will be here, as well as throughout the West! Another species of clover, and the cardoon, both from Europe, cover the Pampas between Buenos Ayres and the bars of the cordilleras at the distance of 180 miles—*Encyclopedia of Geography*, vol. 1, page 248. What makes these facts more mysterious, the seeds of clover are not particularly constructed to maintain their vitality.

Another plant that you are particularly familiar with, is the *bitter weed* or *rag weed*, (*Ambrosia artemisiæfolia*) which is very common among the stubble after a crop of wheat, and if the wheat is winter killed it often takes entire possession of the soil; the next season, however, it generally disappears. The *foxtail grass* (*Setaria glauca*) is another plant of the same nature. As soon as the soil is well set with grass, these weeds disappear, and if a good sod covers the ground and remains in that condition for 20 years these weeds have not been observed, but immediately after a crop of wheat they very frequently almost cover the ground.

The common mullein is another of these periodical weeds. I have seen it spring up in old fields after they had undergone a rotation of crops, but where the mullein had not been noticed for many years before.—

The second year after the "*front ridges*" of the Bald Eagle have been farmed, this weed generally makes its appearance in great profusion; it here seems to follow the *thistle*, (*Cirsium lanceolatum*) this plant being abundant the first year. The manner in which the thistle seeds get here is no difficulty. This is the breeding place of the little *yellow bird* or *American goldfinch*, and the seeds of thistle are their favorite food.

The *pigeon weed* is another plant that often makes its appearance among the wheat where it was never observed to grow before, and often on new land in its first crop. I knew it to occur so abundantly on a piece of new land in Nittany as to almost destroy the wheat, and its appearance whenever certain fields are sown with wheat is familiar to you all, and its disappearance with the wheat is almost almost as general.

These plants are all foreigners, although considered by some, (not intimately acquainted with the history of plants,) as natives.

Although the occurrence of these plants is an object of curiosity, they bear no comparison to our native plants. The *fire weed* (*Senecio hieracifolias*) appears almost universally after a white pine forest has been cut and burned. I have often seen it so thick that it was no easy task to make way through it. The seeds are perhaps carried into the forest a long period before. The *snow bird*, *chicadee*, *finch*, and *crossbill* build in these dense thickets, and line their nests with the soft pappus of the fire weed; by this means the seeds are carried into the forest. If these burned woods are permitted to lie waste, a growth of wild cherries (*Cerasus Pennsylvanica*) comes next. These seeds are planted by the above named birds, and perhaps by others; next comes huckleberries, mountain tea, &c. These seeds are planted by the bird that feeds on the cherry, and these seeds they drop. My observation on these plants has removed the mystery that once so formidably presented itself to me.

Still there seems to be a regular rotation. With wheat we have cheat, pigeon weed and cockle; this is followed by rag weed and foxtail grass, and this again by white clover and the grasses. When a hemlock (*Abies canadensis*) forest decays, the pitch pine takes its place, and when this forest decays, white pine takes its place, and this is the last of the pines—oak, chesnut, and hickory follow.

Dr. Dwight, in vol. 2 page 440 of his travels in New England, says the lands which have been once cultivated in Connecticut and again permitted to lie waste for several years, yield a rich and fine growth of hickory, although there may not be a single tree in any original forest within fifty miles. He also tells us of a field which had belonged to his grandfather, containing about five acres which had been cultivated at an early day, but abandoned, and a growth of white pine sprang up, covering the field

and retaining its figure exactly. The original forest was oak and chesnut. I knew a similar fact in Morris Township, Clearfield County, and another in Clinton Co., on the property of David Matson, near Washington Iron Works; in both instances the original forest was oak and chesnut. Facts similar to these are every where abundant, and many of them are of as difficult a nature as any cheat story we have ever heard, whilst the knowledge of a mere circumstance often develops the whole secret. The Rev. Dr. Robison, in his *Natural History of Westmoreland and Cumberland*, tells us of a grove of oak trees which were known to have sprung from acorns that had been planted by the crows 25 years before. The Rev. Dr. Dwight in the work I have referred to, relates a circumstance of turnip seed growing after laying in the ground for 20 years. He also states that from the dirt thrown from a ditch on the east coast of England, there sprang up a great quantity of white mustard. After many schemes to account for it, it was found that the Dutch had cultivated mustard there 200 years before. He also instances a case in which cherry trees sprang up to all appearances spontaneously; but upon examination the seeds were found in the ground in great numbers.

The same author, vol. 2 p. 441, relates a case in point. A farmer of Guilford; while reaping a field of wheat found a quantity of cheat which was bound into bundles to be used for fodder. It was thrown together on a headland, but a wet spell prevented it from being taken home, and it was permitted to rot where it was thrown. Thirty years after this, this headland, where this cheat was thrown, was grubbed out and ploughed, and on the very spot a crop of cheat sprang up.

The farmers are familiar with the fact that in certain spots and certain fields, cheat is always the most abundant. This has been traced to the original forest, or a certain tree or cluster of trees, being the roosting place of certain birds. The little *quails* or *part-ridges* eat cheat, *pigeons*, *turkeys*, and almost all granivorous birds eat it also. Many persons suppose that seeds taken into the stomach of birds will not grow, but this is a mistake, "for many seeds when carried to a distance from their native country have generally refused to vegetate until they have passed through the alimentary canal of birds"—*Barton's Elements Botany*, page 166. "The seeds of the *mistletoe* are first swallowed by the thrush, and then deposited upon the boughs of trees, it may happen to alight upon. It is even said that the seeds of *Magnolia glauca* refuse to germinate till they have undergone a similar process"—*Keith's Botanical Lexicon*, p. 113. Prof. Jacquin says, the birds, after having eaten the seeds of the *Loranthus*, deposit the seeds on the most lofty trees, where they grow. Rumphius asserts that the pigeon disseminates the tree *Nutmeg* in the East India Islands. Wild pigeons have been killed near

New York with their crops full of rice, which was collected in the plantations of Georgia.—*Nuttall's Ornithology*, p. 762. The robins deposit the seeds of the *poke*, *elder*, and many other nuisances along our fence rows. Thus the best authorities from all quarters of the globe can be brought to sustain the fact that the vitality of seeds is not destroyed by passing through either birds or beasts.

The doctrine of *equivocal generation*, or that the earth contained the principles of vegetable life—*spontaneous generation*, or that plants spring up accidentally—and “transmutation” or that plants pass from one to another from certain causes—have all had their day. But, if such theories were really facts, there would be no end to new combinations and no certainty of finding to-morrow the species you have met with to-day; but such is not the fact. We find species to be permanent and unchanging. There never has been found a new plant springing up without the intervention of a seed or of a germ, and probably there never will be, so long as an unchanging Providence rules over the world; for even before man, every vegetable germ was created; and from that period every perfect seed contains an organized living body capable of producing a plant of the same kind as that from which the seed originated.

It is true, there are a few hybrids; but you can only produce hybrids on species of the same genus. No one has ever succeeded in producing a hybrid of apple and pear, or of gooseberry and currant; and it is only the crossings of varieties of the same species that can produce permanent hybrids in herbaceous plants. All hybrids of different species, except in woody plants, and these can be perpetuated by grafting, return again to the type of one of the parents in the third or fourth generations. (See *Kodreuter, De Candolle, Lindley, Knight, and Keith*, on this subject.)

Wheat and cheat are different species of the same genus; but species of different genus, so widely separated, that no hybrid between them can ever be produced. Wheat belongs to the genus *Triticum*, of which there are about 80 species—cheat to the genus *Bromus*, of which there are 112 species. I made a careful comparison of the two plants, which was published in the 10th No., vol. 1st of the *Farm Journal*, p. 310. Here you will discover differences that no accidents or design can ever reconcile. But cheat is a distinct plant, found growing in a wild state in the south of Europe, and our cheat presents all the same characters in detail with the native plant of Europe. Now, would it be at all probable that any plant would change by accidental causes, to exactly correspond with another plant, and that a great variety of causes should always produce this same degenerate plant, the seeds of which will grow and produce in turn seeds after its kind? This latter fact, I believe, is not questioned by any farmer who has any pretensions to the observation of facts.

If we closely examine a seed of cheat we will find that it contains a skin which consists of two membranes much thicker than that on a grain of wheat, on the inside of this is the *farina*, called in Botanical language the *albumen*, from its analogy in situation and office with the albumen or white of an egg which surrounds the embryo chick. This is different in character and quality from the farina in wheat, as every farmer will testify who has tried it for feed; indeed, it is not worth feeding, being almost indigestible, and when eaten whole, generally passes through the organs unchanged. Situated near the base of the farina is a little sac called the *vitellus*, and in this is the embryo, in the cheat a mere speck, and in but few plants so well guarded for maintaining its vitality.

This embryo is the whole plant in miniature, or the complete epitome of the plant. If we examine a horse chestnut, or buckeye as it is sometimes called, we will find the embryo plant beautifully formed in all its parts, and in the seeds of the *Nymphaea nelumbo*, and in those of the tulip tree, the embryo leaflets are so similar to those of the adult vegetable, that Linnæus, merely from an examination of these leaflets, was enabled to determine to what vegetables the seeds belonged. *Amocritatus Academica*, vol. 6, Des. 120.

When the seeds are so situated that they attain the required amount of moisture, warmth, light, electricity, and all the natural agencies necessary to operate a chemical change, the seed germinates. At first a part of the farina is dissolved and mixed with the oily particles which exist in the seed, and this forms a sort of mollifying juice, and this produces a slight degree of fermentation, and this is the commencement of germination.

Almost every plant seems to require different degrees of some of their natural agencies, or perhaps plants might be classed so as to explain the periodical appearance and the natural rotation of the growth of plants on these grounds.

A seed of wheat, if favorably situated, will vegetate in a single day, yet we are informed that wheat taken from the hand of an Egyptian mummy, where it must have lain 3000 years, germinated and grew, and sprang up as if it had been the product of the year preceding. Keith's Bot. Lex. p. 320. Wheat sowed in the fall often lies until spring before it germinates. A parsley seed requires forty days to germinate, but it has been known to lie many years in an old garden before it germinated. A walnut seed lies in the ground a year, and a pappau seed two years. Many seeds will never vegetate if they are permitted to get dry, as the *horse chestnut*, some of the *maples*, &c., whilst others can be kept in the dry for almost any length of time without destroying their vitality, as wheat, corn, all the *peas*, *sensitive plant*, &c., some of which have actually been kept from 60 to 100 years. Some plants will not germinate when

buried deeply in the earth, as *pulsane*, which will only germinate when near the surface, yet it will preserve its vitality if buried deep for many years. Black oats grew vigorously, after having laid deeply buried in the soil in Scotland for half a century. See *Barton*. I have known *carrot*, *poppy* and *white mustard* seeds to lie many years in the ground. Some seeds will only grow when immersed in water, as several species of *butter cup*, water pepper, eel grass, and all the sea weeds and many others.

Dr. Gray remarks: “Seed buried deep in the soil being removed from the influence of air and light, and subjected to the uniform temperature of the earth, often preserve their vitality for many years, and are ready to grow when brought near the surface. Thus, when a waste field is cultivated, plants often spring up which have not been known to grow in that situation since the memory of man, and species for many years lost to florists, occasionally spring up on the sites of old botanic gardens.”—*Gray's Elements*.

The botanist is familiar with the sudden disappearance of many plants, and perhaps after the lapse of many years they will suddenly appear again as abundantly as ever. The *Gerardia auriculata* was not found at West Chester from 1816 to 1827. *Flora Cestrica*, p. 367. In 1835, the *Platanthera obiculata* was found in a woods near West Chester, for the first time, yet the ground had been diligently explored by good botanists for 20 years. Two years before, I was on the ground every week during the summer, but never saw a vestige of it. In 1843, the *Viola hastata* disappeared from a locality that I know, and I have not seen it there since. In 1842, the *St. Johnswort* failed to make its appearance in Pennsylvania, but in 1845 it suddenly appeared as abundant as ever. The *Silene nivea* was lost to botanists in Pennsylvania for many years, but I found it a few years since near where Muhlenberg had found it. These facts admonish us to receive the transmutation stories with great caution. Some plants are confined to certain locations. The tree pink grows on the isle of *Croce*: the Double Cocoa nut on the Isle of Praslin; the thrift-seurvey grasses and rose root in rocky and stony places upon the tops of the highest mountains, and the shores of the ocean, yet not in any intermediate places. The dodder is found among flax, the cancer root under beach trees, and the parante have their peculiar location and never appear any where else.—The Geologist acquainted with botany can often detect the formation of the buried strata by the plants on the surface!

Cheat grows among wheat, rye, timothy and other grasses, on all soils, I believe, and in all climates where wheat will grow. Sometimes only under certain circumstances, at other times it is found every year. On a small spot on the Rev. J. B. Meeks' farm it appears every year,—its usual locality is with the wheat or rye, and if two crops succeed each other, it

has been known to get master of the wheat entirely and take exclusive possession of the soil. It is a most prolific bearer and ripens from 5 to 10 days earlier than wheat. The President of this society handed me a root which produced eighty-two bearing stalks on which we found above 1000 seeds; these on a second crop would be sufficient to seed several rods sufficiently thick to choke out all the wheat.

In conclusion, I wish to impress one fact, and that is that the plant is in the seed. The root gives the first indications of life. It takes a downward direction, the stem elongates and rises upward, and in due time develops leaves. Thus the seed has in itself, in an undeveloped state, all the essential organs of vegetation. The leaf is the expansion of the bud, and all the appendages of the plant are but modified forms of the bud. Contracted it is the *stamens*, a slight modification the *pistils* and a still more contracted condition, the seed. From the bud alone we can raise a perfect plant. As the subject of vegetable physiology is now understood, all the laws which govern and control these changes and developments are plain, distinct, and intelligible, but the admission of the doctrine of “*degenerate transmutation*” will destroy the whole, and a confusion will exist that every stalk of wheat and cheat will refute, when subjected to the scrutiny of scientific investigation. J. M. M'INN.

Unionville, July 31, 1852.

Gapes in Chickens.

MR. EDITOR: I observe that several of your correspondents have suggested remedies for the gapes in chickens, which are, no doubt, very good. I have a remedy, however, which I am induced to prefer, mainly because I have tried it so frequently and have never known it to fail. It is this: I take one half a teaspoonful of cordial, which I pour down the throat of the suffering chick, when the mouth is opened wide, so that a portion may be taken into the wind-pipe. This causes more violent gasping or coughing which dislodges the worm and relieves the chicken.

I raise a great many chickens, and before I discovered this remedy, lost a great many by the gapes, but none since. Some of my neighbors recommend grease or oil to be poured down the throat of the chick instead of cordial, and it is said to operate with good effect sometimes. J. S.

McLellandstown, Fayette co., Pa.

[The remedy suggested by J. S. may be a very good one, but can prove serviceable to our readers only when he informs what kind of cordial he uses for the purpose.—Ed.]

FOR YOUNG CATTLE AND HORSES.—Mix occasionally one part of salt with four parts of wood ashes, and give the mixture to different kinds of stock, summer and winter. It promotes their appetites and tends to keep them in a healthy condition. It is said to be good against bots in horses, murrain in cattle, and rot in sheep.

The Practical Farmer.

MR. EDITOR: Your last Journal gave some interesting references to a good Chester County farmer, who spent much of his life in the cultivation of the *mind* and *heart*, while he also cultivated the soil.—Having done what good he could in his day and generation, he went peacefully and quietly to his rest, and it becomes those who follow him, to honor his memory.

It is fortunate that he left a son, fully competent to the task, who has found himself able to turn aside from super-abounding care in his profession, which public confidence reposes in him, to discharge this sacred duty. Farmers will thank him for presenting to them so fully the pattern of one of our early, successful, and intelligent agriculturists. Philip Price was one of the first decidedly improving Chester County farmers, and no county in the State has gone ahead of Chester.

The memoir from which you have furnished extracts, confirms traditions, which the writer has often heard, that at the time of the revolution, and after, the original productions of the soil about West Chester had been exhausted—that farms in the region round, now cultivated like gardens and worth from one hundred and fifty, to two hundred dollars per acre, were little better than sand fields, scarce worth cultivating—that Philip Price was among the first to introduce improvements by the use of Lime and Plaster, the rotation of crops, and the growing of clover. From Osborn's Hill, one mile South of his old homestead, the eye takes in an horizon of some ten miles diameter, say from West Chester to Chad's Ford, which presents more snug farms, improved nearer as they should be, more agricultural thrift and comfort, than, perhaps, any area of similar extent in this country. Many of them are enclosed and divided by living hedges. All have substantial, comfortable dwellings, large stone barns, neat stone spring houses—and few are without water in every field. Within this horizon, a few years back, there was more than one cultivator who had his hundred thousand at interest, the proceeds of tilling the soil with his own hands aided by his sons, trained up in the way in which they should go. On this spot, with such well informed men as the late Judge Hopkinson and Judge Baldwin at his right hand, the writer has taken this survey, gone over their detail, and been confirmed by these close observers in the result above. It would be out of place to dwell on the historical associations which the spot calls up, it being the position occupied by Lord Howe at the battle of Brandywine; Birmingham meeting house, where it commenced being in full sight, and the hill north of Philip Price's being the place at which the British stopped to refresh, before the battle.

Among those who knew Philip Price long and in-

timately, enjoyed his friendship and appreciated his worth, was that popular Essayist, Charles Miner; a general favorite of farmers and of Friends; who represented that District in Congress two succeeding terms with marked ability, and secured the abiding confidence and correspondence of John Quincy Adams and Henry Clay while they lived, as he had before long enjoyed that of Thomas P. Cope and his compeers whom he had met in our own Legislative halls. Mr. Miner was one of the most active, intelligent, and efficient promoters of the Agricultural Society of which Philip Price was the first President, and through the columns of the *Village Record*, did much for the good cause. Some of the letters of Dr. Mease which appeared there, might be republished now, with profit. The first beautiful things of Bryant the poet, we ever saw published in Pennsylvania, an ode prepared for an agricultural rejoicing, which has not since been surpassed, appeared in the *Record* in 1820. You have a copy of this ode.

These few remarks are intended as introductory to what Charles Miner said of the excellent man (whose memorial by his son has recently appeared,) when he died. * * * * *

Extract of a letter from Charles Miner, Esq., to Eli K. Price, Esq., dated March 4, 1837:

"In a long intercourse with the world, I have never met with a man who united in himself so many claims to esteem and love. His aspect was so benignant, his manner and address were so mild and engaging, that the bosom seemed to open to him in confidence before he spoke. Then, his clear mind, sound understanding, and benevolent heart commanded respect, inspired confidence, and enabled him to do so much good among his fellow men.

Extract of an article from the same source which appeared in the *Wyoming Herald*, soon after.

"Philip Price was descended from a very respectable Welsh family, among the earliest settlers in Chester county. In person he was tall, well formed, of excellent though not robust constitution. His countenance mild, intelligent, and pleasing, his movements dignified and easy, and his manners and address remarkably bland and prepossessing. The mind of Mr. Price was well informed, his judgment clear and strong, united to an intuitive perception of character, and a ready apprehension of the right and proper in all matters of business. Though seeking no distinction in the walks of public life, it was impossible but such a man should have extensive influence in society. He had. And as duty led him, it was his pride (if that word may be used in connexion with his name) and pleasure to exert that influence for the benefit of his fellow-men.

"Mr. Price was among the earliest, most liberal, and enlightened of those who broke in on the old exhausting method of farming; and took the lead in introducing plaster, clover, lime, and a proper rotation of crops, the four grand pillars of improvement that have raised and sustain Chester county as one of the most rich and productive districts in Pennsylvania. No one had more influence in the excellent

society of which he was a member; because that influence was ever exercised wisely and prudently, in doing good. On an eminence, in a most romantic situation, overlooking the fertile hills and rich meadows, along the Brandywine, his mansion was situated, fronting to the east and south; on this elevation, his spirit seemed pure as the air he breathed; his mind appeared to expand with his expanded view, and his spirit was bright as beams of morning sun.—Friendly and hospitable, it was delightful to visit there and share in the converse of himself and his amiable and intelligent partner. After educating his children with care, and seeing all of them happily settled, and most of them near him, Mr. and Mrs. Price, impressed with its great importance, and taking a parental and lively interest in the improvement of the rising generation, accepted the situation of Superintendents of West-Town School, where they remained for several years.

"At the age of 74, having spent a life of usefulness and virtuous enjoyment—for there never lived a happier man—surrounded by children and friends, amid the prayers and blessings of all who knew him, the good man, like the sun in a mild summer evening, full of Christian faith and Christian hope, lost to our sight but not extinguished, sinks calmly and sweetly to rest."

SULPHUR FOR GRAPES.—Robert Sinclair, Jr., Esq., writes us to say, that:

"The flour of sulphur, dredged on grape vines, will effectually prevent mildew, and other diseases, that the grape is liable to. The dredging should be done when the dew is on, or after a light shower of rain. I tested the above fully, and have annually healthy vines, and good crops of grapes. The sulphur is also an excellent, active manure. A dry, south-east exposure is best for grapes; soil deep, well manured with well decomposed manure, bones, fish, oyster-shells, lime, &c."

He thinks also that the disease might be as effectually prevented by oil of vitriol, (sulphuric acid,) say the following proportions, sprinkled on the vines, viz: $\frac{1}{2}$ water, $\frac{1}{2}$ acid.—*Prairie Farmer*.

COLTS.—The breaking of a colt should commence before he is twenty-four hours old. Handle him frequently, make a pet of him. Bridle him young, and the winter when he is two years old, place a wagon saddle on his back, and buckle the girth loosely. Take it off at night, and after doing this a few times, add the breeching, and pursue this course with all parts of the harness, until the whole is familiar with him. Then add the whippetree, and while a careful person leads him, hold back so that he may feel the pressure of the collar or breastplate gradually. If he is high spirited, so much the better—if you do not heat him. Be resolute and firm with him, but not abusive.

HOLLYHOCKS COMING ON THE STAGE.—The Dahlia is a superb flower, and is rendered more desirable by its autumnal season. But its tender roots are a

great drawback. Were it a hardy perennial, it would far exceed in floral value even the Pæonia.—Much attention has lately been directed to improvements in the *Hollyhock*, which is likely to rival the Dahlia, with addition of hardiness. Semi-spherical flowers, exceedingly double, with closely imbricated petals, with all the various shades of deep and light rose, salmon, claret, deep crimson, brilliant red, pure white, &c., &c., have been produced so closely packed around the stem, that a green leaf can scarcely peep between them, and some fine varieties have grown nine feet high. A single English cultivator has an acre of his nursery devoted to them, 6000 being in splendid bloom at one time.—*Ex.*

TO PRESERVE GIRDLED TREES.—In the April number of the *Farmer*, page 129, J. H. L., of East Charlemont, Mass., inquires if any of your correspondents know how to preserve trees that have been girdled. Tell him to take out a block of wood extending into the bark above and below the girdle, and take from the body or limb of another tree a block corresponding in size and shape, with the bark on, and adjust it in the place, and bind it there, on the principle of engrafting. I have recommended this plan before, and it has proved completely successful.—C. MOORE, Port Clinton, Michigan.—*Genesee Farmer*.

DWARF APPLES.—The *Genesee Farmer* states, that a Dwarf apple tree, seven years planted, and ten years old, the tree not over three feet high, growing on the grounds of Aaron Erickson of Rochester, produced a Fall Pippin sixteen inches in circumference and weighing twenty-six ounces. Two or three others were nearly as large. Apples grow rather larger on dwarfs than on standards. There is one interesting question in connexion with this subject, that we would liked to have answered, viz: At what price could such apples, thus grown on dwarfs, be afforded per bushel, as a general average for seasons and cultivation and the cost of a crop per acre, and the comparative value with other apples in market.—*Alb. Cultivator*.

PRUNING IN AUTUMN.—The late S. W. Cole, who strongly recommended autumnal pruning for fruit trees, says, "Thirty-two years ago, in September, we cut a very large branch from an apple tree, on account of an injury by a gale. The tree was old, and it has never healed over, but it is now sound, and almost as hard as horn, and the tree perfectly hard around it. A few years before and after, large limbs were cut from the same tree in spring; and where they were cut off the tree has rotted, so that a quart measure may be put in the cavity."—*Alb. Cultivator*.

Green Crops for Manure.

BY JAMES GOWEN, MT. AIRY, PHILADELPHIA.

A. J. DOWNING, Esq.—Dear Sir: On the score of sound practice in agriculture, rather than of courtesy to me, I claim the privilege of saying a word in relation to the strictures in your last number, upon my remarks on "Green Crops as a manure." I do not complain that you took occasion to animadvert upon anything you found worthy of noting in my Agricultural Address, at Lancaster, being well aware that it was perfectly at your option to single out for comment, whatever you might deem objectionable.—Acknowledging, also, that I have no right to expect every one should concur in my views, upon a matter as susceptible of a difference of opinion, as the condition of farms and the position of farmers differ—the circumstances being the rule by which to determine the necessity or propriety of turning in a crop to serve as manure.

In my address, in which the turning in of green crops was merely incidental, it could not be expected that the special cases, justifying a resort to such manuring, could be enumerated—I could but deal with the subject in a broad and general sense, and from a long and close observation on the practice of husbandry, a sense of duty constrained me to denounce the custom of raising crops to be plowed under, as "time wasting and land cheating." No one, not even yourself, Mr. Editor, can have a higher appreciation of vegetable mold than I have, and I challenge New York, or any farm in Pennsylvania, to show better sods on uplands, after having yielded for as many years, heavy crops of hay, than I can now show upon my place; and may safely add, that I have yet to meet the man who would rejoice more in having such a sod to turn under, when it becomes necessary to break it up; but with all this appreciation, I would not rely upon it to bring me a crop of grain, potatoes, &c., without the addition of what is known among farmers as "barn-yard manure," notwithstanding such a sod would be richer and more enduring than the "scant crops of partly grown clover, buckwheat," &c., which I pointed at as unworthy the name of manure. Had these fields I have mown for some seven or eight years, been laid down in 1833 and 4, with only clover or buckwheat, and the like, turned in, would they, as they did, have yielded forty to forty-five bushels of wheat to the acre, as first crops, and cut ever since close on two tons of fine hay, on an average, to the acre?

Assuredly not. In the course of two or three years at farthest, the crop of clover growing, would be required to turn under, to serve as manure for a grain or some other crop, involving prematurely the labor of breaking up, seeding, &c.; and what would be the condition of the land, and the character of the crops, after another two or three years shift under such a practice—I allude to such soils as we cultivate? It was in view of this system that I said, "in whatever place it is practiced, however strong the land may be at the start, the system, if persevered in, must inevitably bring the land, its owners, and the country, into a state of poverty. No good husbandman would think of pursuing such a course."

If the address had been fairly read, its general bearing and scope properly considered, it might, perhaps, saved you and others from drawing the inference, that I held clover and other green crops worthless as fertilizers. I never so thought, nor did I intend to be so understood. I knew clover would in some degree serve the purpose of manure, and so would potatoes, wheat, rye, barley, &c., &c., but I

knew also that these, as clover, would be costly and but indifferent manures, compared to barn yard manures, peat, and putrescent substances, which if not used to enrich the land, would become pestilential nuisances; for we must have cattle and other live stock—while offal and other offensive matter would be constantly accumulating. Insisting, as I did, upon the crops going to the barn, to be put to their proper use, and the offensive matters applied, as they should be, to the land; and in this, who shall be so unthinking as to say, I was wrong? Moreover, I had been grieved to perceive a germ of quackery springing up with our efforts at scientific agriculture, and while I attempted to awaken the good farmers of Lancaster to a proper spirit of improvement, I took occasion, husbandman like, to caution them against nostrums and humbug, urging a chief reliance upon the cheap and excellent manures so easily obtained in and about their barn yard and premises.

To the question whether I have seen the statement of Mr. MORE, in regard to his premium farm—I answer that I have; and, instead of condemning his practice, have simply to say, that had I been in his situation, I might, perhaps, have resorted to the same means, he had recourse to for the improvement of his land. But did Mr. MORE depend solely upon the turning in of green crops, pending the process of renovating it? I presume he used other manures, which with gypsum, aided in restoring his farm to good condition. But this case, and others I have heard of, do not affect the force of the injunction against a persevering system of turning in green crops as a substitute for manure. It may be that this very land that Mr. MORE found so wretchedly impoverished, when he took possession of it, owed much of its poverty to his predecessor having followed more closely the appliances of clover, buckwheat, &c., by way of manure than Mr. MORE did—one thing at least is certain, and that is, the impoverishment was not owing to the former owner or tenant having been too liberal in the application of barn yard manure.

Now the best way to test the soundness of my views, as to the system I so deprecated, would be, for some one having a farm in such good condition as Mr. MORE's is now found to be in, to follow the green crops thoroughly for five years, discarding the vulgar practice, if you please, of husbanding barn yard and stable manure. To note the seasons consumed in raising the crops to be turned under, to produce the "carbon," "oxygen," "nitrogen," &c.,—the simple pure fertilizers required to grow the wheat, rye, corn, potatoes, &c., &c., for the barn—to keep an exact account of the value of the crops so housed, together with the sum total of the expenses of the farm, and then to exhibit the net gain in the "yellow boys" that are now jingled in "Mr. Gowen's" ears, to convince him of the profits resulting from the turning in green crops instead of manure; and if such a system, on such a farm, at the end of five years, leaves the purse well filled and the land in as high condition as at the beginning, I shall not only confess that I was wrong, but be willing to pay a premium of half the value of the farm to the husbandman who had worked such a miracle.

Let it be remembered that it was such land, at this, not worn out land that I had in view, as may easily be perceived by my remarks, for how could the land be brought "into a state of poverty," that had not been rich, but in poverty already? If, Mr. Editor, you will take the trouble to again glance at the address, from which you have predicted that if I go on at the rate you infer I am going, I will, as you

say, "demonstrate that there is no warmth begotten by sunshine," you will be led to believe at least, that I am in but little danger of dealing in moonshine.

Your obedient servant,
JAMES GOWEN.
Mount Airy, Philadelphia, July 19th, 1852.

REMARKS.—We like the straight-forward spirit of Mr. GOWEN's remarks, and find by them, that in the main point at issue we are entirely agreed. That is to say, that if Mr. Gowen simply wishes to affirm that there is no comparison in the value of barn-yard manure for keeping a farm in heart, and green crops, we say Amen, with all our heart. No person has a firmer faith in the value of barn-yard manure, than myself, as we believe that with plenty of it, and the knowledge how to use it, one might smile, even at the bottom lands of the west. But, as Mr. Gowen will not deny, that the said bottom lands are the most fertile lands in America, will he do us the favor to ask himself how they became such a store house of fertility? By the deposit and decay of animal remains? No. By the annual deposit for hundreds of years, of vegetable remains? Assuredly. Nature has been plowing in green crops every year, on those bottom lands, till they are most undeniably rich.

So far we think Mr. Gowen will agree with us—that there is virtue in decaying and decayed vegetation buried in the soil, whether in the shape of clover plowed in or otherwise. But we now suppose from reading his remarks, with which he has favored us, in the above communication, that we have probably misapprehended him in another way. Mr. Gowen is not only a good practical farmer, but an excellent teacher of husbandry, and in Pennsylvania and the States south of it he notices that farmers neglect their barn yard manures to follow the new fangled fancies of plowing in green crops, using mineral manure, &c. He accordingly tells them that green crops, under such circumstances, are not worth their attention, which ought to be devoted to the permanent enrichment of their lands by the use of animal manure. And the advice is the best of advice. We look upon barn yard manure as the solid bullion, green crops, gypsum, lime, &c., as the paper currency of husbandry. But in many parts, we were going to say most parts of the country, the bullion is scarce—is only to be had in very limited quantities—so that not a half or third of the farm lands can be well manured with it. In such a condition of things a farmer who wishes to mend his land and not lose his profit, will, we think, occasionally employ the paper currency to maintain and restore the credit of certain fields that would come to a beggared condition, if they had to wait for the bullion. Barn yard manure, we say, with Mr. Gowen, before everything, but if we can't get enough of it, then we must not despise what the experience of so many good husbandmen has proved of decided benefit—grain crops plowed in. Ed.—*Horticulturist*.

TO MAKE A HORSE FOLLOW YOU.—You may make a horse follow you in ten minutes. Go to the horse, rub his face, jaw and chin, leading him about, saying to him, "Come along;" a constant tone is necessary. By taking him away from other persons and horses, repeat the rubbing, leading and stopping. Sometimes turn him around all ways, and keeping his attention by saying, "Come along." With some horses it is important to whisper to them, as it hides the secret and gentles the horse; you may use any word you please, but be constant in your tone of voice. The same will cause all horses to follow you.

IMPROVED SPANISH MERINO SHEEP.

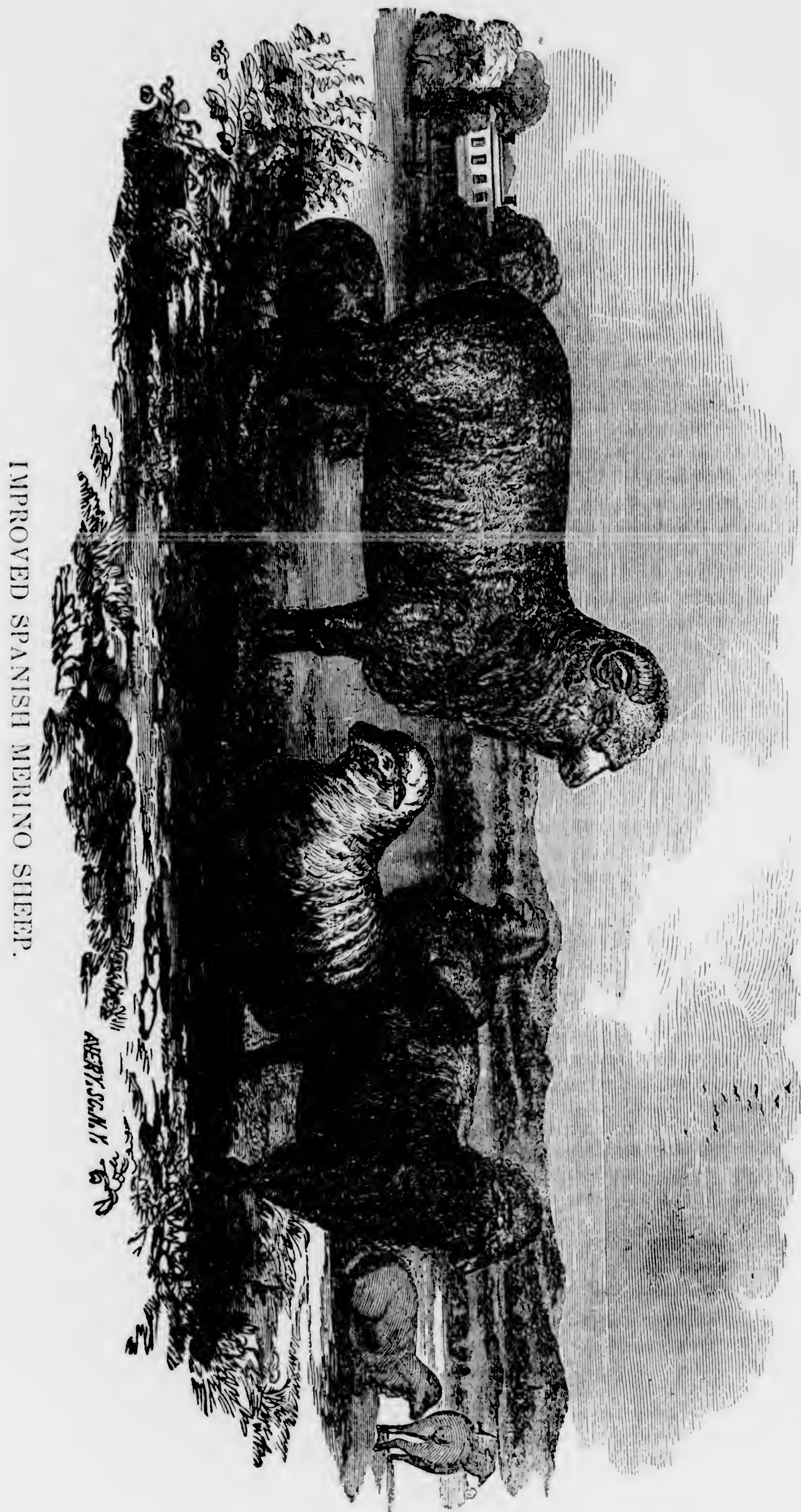
We print on the preceding page a spirited engraving representing the Improved Spanish Merino Sheep, recently imported by S. W. Jewett, Esq., of Weymouth Vt., and now in possession of Messrs. H. S. Morse and O. F. Holbaird, where they justly excite the admiration of all who behold them. Mr. Jewett is well known as one of our largest importers of improved stock, and is now on his way to the Continent for the purpose of attending to the shipment of about \$15,000 worth of his last year's purchase, which we trust will prove a profitable investment for him, as we hope it will be a very important one for the friends of improvement in sheep-breeding throughout the country.

In regard to the improved sheep of Mr. Jewett's importation, a friend, who has had every opportunity for observing them, remarks:

"We wish those of our readers who have any taste for fine animals could visit the establishments of our friends, H. S. Morse, Esq., and O. F. Holbaird, Esq., at Shelburne, and look at the flocks of the new sheep recently imported from France. It is difficult to make those who have not seen them understand the immense disparity between them and the ordinary sheep. We had a chance to compare the two breeds, in a shed where the common sheep and the French ones occupied two divisions in sight of each other.—The natives made a sorry show indeed. They looked as if they had pastured on a desert, and eaten thistles in winter, although they had had exactly the same care and feed as the foreigners. The lambs of the French breed, three months old, are just about as large and heavy as a full-grown common sheep; and then the wool—it needs to be seen and felt in order to be appreciated. They are mostly covered thick with it, above and below, from the hocks to the tip of the nose. There is no waste room on them; and as one stands looking at them, it seems by no means extravagant to suppose they can bear the enormous fleeces that are attributed to them. Those we saw at Mr. Morse's have had no feed except grass and hay since their importation in August, and yet they are in a better condition than any common sheep we ever saw at this season. They are moreover extremely prolific and seem to bear this climate as well as the natives.

"We know very well that the truth with regard to these sheep is so astonishing as to raise doubts among those who know nothing of them; but we feel sure that a visit to them will remove all the doubts of the skeptical. After looking over the flocks, and comparing their stalwart lambs with the full-grown sheep of the common kind, we are convinced that the general introduction of the new breed in this country will work a perfect revolution in the wool-growing business, and improve the quality of the mutton out of all proportion to the increase of trouble and expense. Nor did we wonder that the proprietors had refused what sounds like the extravagant price of \$550 for their best stock sheep. The result of the enterprise, whether as respects the value of the importation or the success of the importers, is now no longer problematical. The demand for the sheep is steadily increasing, and already exceeds the supply.

For the handsome illustration which follows this article, and for the article itself, we are indebted to the publishers of the Plough, Loom, and Anvil, a work with which most of our readers are familiar.



IMPROVED SPANISH MERINO SHEEP.

Pennsylvania Horticultural Society.

The stated meeting of this Society was held in the Chinese Saloon, Philadelphia, on Tuesday evening, August 17th,—Dr. W. D. Brinckle, V. P., in the chair.

There has not been at any former meeting for this month, so fine a display of fruits as on this occasion. The competition was unusually spirited, and the committee for awarding premiums seldom have had their powers of discrimination more thoroughly tested.—In Grapes there were some ten contributors, who presented such specimens as have rarely graced the tables of the Society. The Black Hamburg variety was in the greatest profusion, and the White Nice most beautiful. Of Nectarines, the Red Roman, Elruge, New White and Newington varieties were shown. Of Peaches there were a few dishes, one particularly fine of Ward's—the tree raised in a pot in Mr. Cope's green-house. The dishes of Plums were very numerous and of many varieties; among them were the Reine Claude, Flushing Gage, Bingham Magnolia Bonum, Gwash, Washington, Mirabelle, Mammoth and other kinds. The table of Pears was a beautiful sight, the specimens were perfect and in great variety. The Apples in most instances remarkably fine and of many kinds.

This exhibition betokens a most fruitful season, and is the harbinger of a rich display next month at the American Pomological Congress, and the grand autumnal of the Society, both of which will occur during the week, commencing with the 13th.

The collection of plants shown as very interesting.

Peter Mackenzie's contained very many choice Fuchsias, Gloxinias, Geraniums, Verbenas, etc.

Caleb Cope's had several recently introduced plants and were shown for the first time—Oldenlandia Deppei, Francisca Vilosa, Gloxinia, Madame de Sombreil and G. Napoleon, and beautiful specimens of Russelia Juncea, Achimenes Venusta and grandiflora. Also a cut flower of the Victoria Regia, the 3rd from the same plant, and seen for the first in its second stage of growth, and a design among the flowers ornamenting the same, were three specimens of the Cereus glaucus (new), and beautiful baskets of exotic and indigenous flowers. In John Lambert's collection were fine plants of Pentas carnea, Roses, Hydrangeas, Acacias, etc.

Robert Buist exhibited a beautiful flower of the Victoria regia, the second from a plant raised from seed obtained from Caleb Cope, in a tank erected expressly for that object, at his premises at Rosedale, Kingsessing.

The Designs, Baskets and Boquets were handsome and very creditable.

The Vegetable tables groaned with their great weight—which contained specimens of the finest growth, exhibiting much skill in the cultivators.

A new variety of Salad attracted attention from its spotted appearance, called 'Forelle Kopf Salat,' The Trout Speckled Salad of Austria, raised from seed brought from Vienna, on the open ground, by Dr. J. Rhea Barton.

Premiums were awarded as follows:—

Plants in Pots.—For the best and most interesting to Maurice Finn, gardener to John Lambert. **Boquet Design.**—For the best, to Thos. Meehan, gardener to C. Cope; for the best hand Boquet, to H. A. Dreer's foreman; for the best basket of cut flowers, and for the best basket of native flowers, to Thos. Meehan. And special premiums for five new plants, to Thos. Meehan; and for a fine collection of cut German as-

ters, German ten week stocks, and other annuals, from H. A. Dreer's garden.

Grapes.—For the best three bunches of a black variety, (the Black Hamburg) to James Meredith, gardener to J. N. Dickson; for the second best to A. J. Smith, gardener at Eden Hall; for the best of a white variety, (the White Nice) to A. J. Smith; for the second best (White Tokay) to William Johns.—**Nectarines.**—For the best 6 specimens (the Newington) to Matthew Gardiner, Alex. Brown's Gardener; for the second best, (the Elruge) to the same. **Plums.**—For the best (Reine Claude) to Mrs. J. B. Smith; for the second best (Flushing Gage) to Thos. P. James. **Pears.**—For the best eight (Tyson) to Wm. Parry; for the second best (Manning's Elizabeth) to H. W. S. Cleveland. **Apples.**—For the best half peck (Early Bough) and for the second (the Hagloe) to John Perkins.

Vegetables.—For the best display by a market gardener, to Anthony Felton, Jr.; for the best by a private gardener, to Thos. Meghran, gardener to R. Cornelius; for the second best to Maurice Finn, gardener to John Lambert. And special premiums to Anthony Felton Jr. for a display of Egg Plants, and to Thos. Meghran for a display of new Corn called "Stowell's evergreen sugar corn," being remarkable in size and represented as very productive and superior for the table.

The Committee also notice with pleasure, and call the attention of the Society to a new variety of Salad, called the speckled salad of Austria, grown from seed obtained from Vienna, and exhibited by Dr. J. Rhea Barton.

The Fruit Committee submitted the following Reports of objects shown to them, *ad interim* of the meetings of the Society.

AD INTERIM REPORTS.

PHILADELPHIA, July 20, 1852.

The Fruit Committee respectfully present in an *ad interim* report, some notice of the various kinds of fruits submitted to their inspection since the last stated meeting of the Society.

Beautiful specimens of the Moyamensing Strawberry, grown by Mr. Jas. M. Tage, of Burlington, N. Jersey. This fine Pennsylvania strawberry is of a dark crimson color, quite large and of a delicious flavor.

A basket of Hovey's Seedling Strawberry of extraordinary size, from Mr. Joseph J. Hatch, near Camden, N. Jersey.

Two boxes of Walker's Seedling Strawberry, from the Hon. Samuel Walker, of Roxbury, Mass., a new deep crimson staminate variety, of good size and of great excellence.

A basket of White Bigarreau Cherry, in great perfection, from John R. Brinckle.

Finely grown and handsome specimens of seven varieties of Cherries, from Mr. John R. Latimer, of Wilmington, Delaware. Among these was the Black Tartarian of great size and excellent flavor.

A box of very large Napoleon Bigarreau Cherries from Samuel Ott, of Montgomery county, weighing a quarter of an ounce each.

From A. M. Spangler, of Lancaster, a box containing beautiful specimens of the Cumberland Seedling Cherry, and of a large Strawberry that originated with Mr. J. L. Grosh, near Lancaster. The box was directed to a member of the Committee who unfortunately was absent from the city on its arrival, consequently when examined, the strawberries were

not in a condition to have their merits properly tested. But the cherries were in good condition though rather under ripe. The Cumberland Seedling is a new native Pennsylvania cherry, of great excellence, large size, purple color, obtuse, heart shaped, compressed at the sides, slight depression at the apex; stem $1\frac{1}{4}$ inches long, set in a broad open depression.

A box of the Triumph of Cumberland, from Mr. Cocklin, of York county, through Mr. Shaffer; fully ripe and in fine condition, a Pennsylvania cherry of large size and excellent quality.

A box of the Conestoga Cherry, from Mr. Casper Hiller, from the original tree in Conestoga township, Lancaster county. This is a large, firm fleshed purple cherry of superior quality, weighing a fifth of an ounce, and said to be an uniform and abundant bearer.

Specimens of a large Raspberry from Dr. J. K. Mitchell. This raspberry is fully equal to the true Red Antwerp in size and flavor, and closely resembling it in form. It is an accidental Seedling which sprung up at the country seat of Dr. Mitchell, on the Wissahickon, where no raspberries had previously been cultivated. Though entirely unprotected, Dr. M. assured us that it has withstood the two last winters, without having received the slightest injury.—This variety we have named the Wissahickon, and strongly commend it to the favorable notice of horticulturists.

Fine specimens both of the tree and dwarf Service berry (*Sorbus domestica*) from D. C. McCammon, and grown near Middletown, Dauphin county.

PHILADELPHIA, Aug. 17, 1852.

To the President of the Penna. Horticultural Society:

The Fruit Committee report that since the last meeting of the Society, specimens of the following fruits have been received by them:

The White Juneating and several other Apples, from Saml. Ott.

A Seedling Apricot of fair and beautiful appearance, large size and fine flavor, from Mrs. J. R. Latimer, of Wilmington, Del., to whom we are also indebted for specimens of a pear of handsome exterior and good size, but of inferior quality.

Moorpark and Musch Musch Apricots, both very fine,—some of the former weighing two and three-quarter ounces,—from Thos. P. James.

Pears supposed to be Grisse Bonne of pleasant flavor, but speedily decays at the core, from Mr. E. Patmall, jr., of Wilmington, Del. From the same gentleman, the Holden Apricot, a valuable Delaware Seedling, though not so large and fair as the Moorpark, of a fairer and more saccharine flavor.

The Washington and two imported Plums from France, of excellent quality and good size.

Green Chisel Pears from Mr. Wm. S. Cleavinger—fair specimens.

A Seedling Raspberry, labelled No. 7, from Mr. James Powell, of large size, roundish form, light-yellow color, fine flavor, very late and very productive—the branch sent Aug. 7th, having on it about fifty ripe and green berries.

From J. Rutter, West Chester, five varieties of Pears—the Bloodgood, fine specimens; Osband's Summer, excellent; Trimble, too far gone when cut; and a small pleasant Seedling Pear from the premises of Dr. Darlington.

Specimens of 14 varieties of Pears from Mr. Thomas Hancock,—Belle d'out, English Jargonelle or Epargne, French Jargonelle, Limon, fine quality,

Bloodgood, Rostiezer, one of the very best summer pears, Manning's Elizabeth, excellent, Windsor, Dearborn's Seedling, Early Catharine, Edward's Meadow, Shenks, Skinless or Poire sans peau, and Julienne.

Specimens of five varieties of Apples from D. Miller, Jr., Carlisle. The White Queen, Summer Queen, Lancaster Queen, E. Codlin and a Seedling.

The Amendment to the By-Laws, as proposed at the last meeting was adopted, providing that contributing members shall pay only a pro-rata proportion of the year in which they are elected.

The thanks of the Society were ordered to Mr. Burnett for the gift of 2 vols. for the library.

The following appropriate resolutions were unanimously adopted:—

Resolved, that we deeply deplore the afflictive providence which involved, in the destruction of the Henry Clay and the tragical loss of many valuable lives, the removal of our esteemed fellow member, A. J. Downing, of Newburgh, in the pride of manhood, and in the full maturity of his powers, from the scene of his useful and honorable exertions, at a time when his services were so universally and highly appreciated, and when his efforts in life were producing throughout the land, the beneficent and beautiful results for which he had so long labored, and over which his benevolent spirit would have so generously rejoiced.

Resolved, That we regard as a National bereavement and affliction the loss of one whose powers were so diligently and successfully dedicated to the purest and best interests of his race and his country: that the deceased was endowed by nature with a vigorous intellect, which was elevated by liberal and practical cultivation, and directed by an expanded philanthropy and a glowing love of nature, to the promotion of those pursuits connected with rural life and rural happiness which, while they contribute to the solid power and prosperity of a people, refine and elevate their tastes and enjoyments; that the country will hold in grateful and enduring remembrance his valuable and popular contributions to the literature of horticulture—his aid in the promotion of Landscape Gardening—in the improvement of the "Fruit and Fruit Trees of America," and Cottage Residences, and his able and assiduous labors for the general advancement of Pomology and rural economy: that his efforts in these branches have produced an improvement which is perceptible in many sections of our country and that his sudden and melancholy death is a bereavement which will be long and deeply deplored far beyond the affectionate and afflicted circle of which he was the ornament and pride.

Resolved, That as the loss of A. J. Downing is a national calamity, calling for an appropriate national commemoration, we cordially approve of the action of the President of the American Pomological Congress in inviting the Hon. Marshall P. Wilder, an intimate friend of the deceased, to deliver at the approaching session of the Congress in Philadelphia, on the 13th proximo, a Eulogy on the life, character and virtues of our lamented fellow member.

Resolved, That we sincerely condole with his bereaved family upon this afflictive dispensation of an inscrutable Providence; and that as a manifestation of our respect and sympathy, the Secretary be directed to transmit to them a copy of the foregoing resolutions. On motion, adjourned.

THOMAS P. JAMES, Rec. Sec'y.

Original Communications

Encouragement to Sheep Breeders.

MR. EDITOR:—Having noticed in your last No. the long list of liberal premiums offered by the State Society, for cattle of almost every age and description, I felt very much discouraged to see the few and low ones offered for sheep. Now my opinion is that the most liberal inducements should be held out by the Society, for the improvement of that kind of stock which most needs improvement. I therefore most respectfully suggest the propriety of holding out more liberal inducements to the breeders of sheep. Will not all the lovers of good mutton say so? There is no country that surpasses ours in the quality of its beef. At the first Royal Agricultural meeting at Oxford in 1839, I saw a bullock that was bred and fed in our Green Mountain region, and which was decidedly a better animal than any bullock exhibited there. Now for a bull of this kind we are offered a premium of \$15, while for the best buck of any breed we are offered only \$6. Let any candid judge view the condition of our stock market and decide which of the breeds, cattle or sheep, needs improvement most.

The difference in the amount of premiums is one of the grounds of my complaints, the number is another. For cattle there are sixteen premiums offered (exclusive of six, amounting to \$46 for fat cattle) while for sheep there are but six. Why not say \$10 for the best buck, (which is the premium offered for any kind of bull,) \$8 for the second best, and \$6 for the best yearling buck.

My stock of Downs cost high prices, I paid John Ellman \$150 for one buck, and \$25 each for ewes, and he now writes me that he has lately sold ewes at public sale, as high as 12½ guineas, or \$62 50 each. I generally dispose of my stock to those who exhibit them, receive the premiums for them, and for aught I know to the contrary, the credit too. I should very much like to see the system adopted, when fine animals are exhibited, of making known the names of the breeders of them; and I believe every spirited breeder would join me in bringing about such a system. I would further remark, that as the breeders of pure Southdown sheep in the United States "are few and far between," the interests of those few might be advanced by bringing a portion of their stock together occasionally.

I will now proceed with such a list of premiums as I would approve, in addition to the three that I have proposed. I would add for the best buck lamb, \$4, and so repeat the same for the ewes, for the best \$10, second best \$8, yearlings \$6, and lambs \$4, and for the best wethers \$5. Now I do not desire that it should be thought that the sheep breeders are *any more needy* than the breeders of any other kind of stock; but just view the difference. There are \$110

offered for each of the two first named breeds, and \$80 offered for the most inferior breeds; while it may be seen that the list that I propose for the best breed of sheep only amounts to \$61. I am a great admirer of good stock of any kind, and not long since was induced to visit some of the best herds of shorthorns in England, at which time I paid Thos. Bates \$525 for a young bull; but since that time experience has somewhat changed my opinion of the practicability of breeding cattle as a business, to advantage, and I am now prepared to give it as my decided judgment, that our State is much better adapted to the breeding of sheep than of cattle, and that we *might* and *should* surpass most other States in that business, as far as Ohio and Kentucky surpasses us in cattle.

JOSEPH COPE.

West Chester, Chester Co., Pa.

[We regret that there should be any cause for complaint in regard to the premium list. We have reason to know that the Committee who prepared it, acted entirely with reference to what they conceived the best interests of all. If they erred in judgment, the error was one of the head and not of the heart.—Have patience friend Cope, and all will yet be right. In a few years we shall understand these matters better than now.—Ed.]

Working Stallions.

MR. EDITOR:—It is I think, a well established fact that American horses, instead of improving in character, are rather degenerating. This is certainly a source of deep regret to every lover of that noble animal, and the cause of the degeneracy becomes an object of inquiry. Without pretending to enumerate the many defects which characterize our general system of breeding horses, permit me to call attention to a single fact which I cannot but think exercises a detrimental influence. I allude to the practice of keeping stallions in idleness during the greater part of the year, in order that they may appear lively and spirited at the commencement of the season for mares. Reasoning from analogy, I cannot but think that if stallions designed for service, were kept at work during the whole of the year except during the time when their services were needed, for mares; that we should have stronger and better horses than we now have. An idle *man's* offspring is rarely so healthy and vigorous as the offspring of the man who labors industriously day by day. Why should not the same results follow idleness in the horse. They do. In the selection of a stallion, next in importance to good ancestry and faultless form, is well developed muscular action.—This action should be the result not merely of the groom's daily trifling exercise, but of steady moderate labor, continued as in other horses, from the time when he recovers from the effects of his spring service, to the time when he shall again be wanted for similar purposes. If good parentage and form are desirable in a horse, certain-

ly strong muscles are none the less so; and if the good and bad qualities of the sire are transmitted (even in a partial degree), to the offspring, is it not the part of wisdom to use such measures as will be most likely to implant those good qualities in the sire? I think so, and fully believe, that if the stallions intended for service, were worked as other horses, are, or rather should be, we should soon see the result in the more muscular forms of our colts.

Cumberland Co.

E. S. PRATT.

Seedling Fruits.

MR. EDITOR.—In your July number, you request of those knowing of seedling fruits of merit, that they make them known to the public through the medium of the Farm Journal. There are several seedlings of merit in this neighborhood, some of which have been cultivated to a limited extent, but are not known abroad. In compliance with your request I offer the following:

APPLES.

Columbia.—Fruit large, roundish, skin smooth, yellowish green in the shade, streaked and marbled with yellow and red in the sun, stalk medium rather stout and deeply inserted; calyx set in a shallow basin; flesh yellow, tender, with a very rich, peculiar flavor; ripe in October and November; a profuse bearer and worthy of a place in every garden.

Traders' Fancy.—Fruit medium roundish, narrowing a little to the eye; skin smooth, almost wholly red, except in some specimens in the shade, with an occasional blot of russet; stalk half an inch in length, deeply inserted; calyx set a ribbed basin of moderate depth and partially closed; flesh tender, pale yellow, very nearly sweet; a fine keeper—April to June: The trees are fine growers and good bearers.

PLUMS.

Of these we have quite a number, I will, however, describe but two.

Shepler's Favorite.—This superb looking plum is undoubtedly one of the finest of early plums; it succeeds admirably in all soils; bears abundantly, keeps well when taken from the tree gradually ripening, for a week or ten days, and frequently grows larger than Coes Golden Drop; branches smooth and slender; fruit of large size, oval with a faint suture on one side of the fruit; skin first reddish, but becoming reddish purple in well ripened specimens, profusely covered with a white bloom; stalk three-fourths of an inch long, set on one end of the fruit; flesh pale yellow, juicy, and, when at full maturity, rich, sugary, and excellent; it separates freely from the very long, pointed stone; ripe first August.

Spotted Gage.—Is a fruit of great excellence, and is much admired; forms an upright tree of thrifty growth, young branches, downy fruit, rather above medium size, roundish; skin beautifully mottled with

greenish yellow and red, and covered with a thin, white bloom, through which the colors appear to be blended together; stalk half an inch long, slender inserted in a narrow, small cavity; flesh yellowish, juicy, and melting with a sprightly, vinous flavor; separates freely from the stone; ripe last of August.

CHERRIES.

Early May.—A variety that originated here about thirty years ago; fruit rather small, about as large as the Bauman's May, ripening at the same time; skin deep red; stalk an inch and a half long, slender, set in a moderate hollow; flesh tender, juicy, sweet; a first-rate variety, equal to Bauman's May.

Lawrence Red.—This cherry was originated by Mr. Lawrence, of this county, from the seed of the American Heart, and most undoubtedly is the par excellence of all heart cherries; fruit of medium size, roundish, heart-shaped; skin very smooth and transparent, juice colorless, of a soft but lively red, mottled with amber in the shade; stalk inserted with little or no depression; fruit borne thickly in clusters; flesh very tender and melting with a luscious, sweet flavor; ripens from the fifteenth to twenty-fifth of June.

Heis Bigarreau.—This valuable late cherry sprung up on the farm of Mathias Heis, in this county; it is purely of the Bigarreau class; it is a regular and great bearer, and is quite an acquisition, ripening from ten days to two weeks after the cherry season, and hangs for along time after ripening without rotting; fruit large, obtuse, heart-shaped, borne in clusters of three and four; stalk one and a half inches long, set in a pretty, deep broad, hollow; skin pale yellow on the shaded side, with a beautiful blush cheek; flesh quite firm, juicy, with a rich, sweet flavor; in perfection from the tenth to the fifteenth of July.

PEARS.

Doney Pear.—This fruit was originated by an lady, by the name of Doney, some thirty years ago, and has been considerably cultivated in this neighborhood. The tree is rather short jointed, with yellowish brown wood, is a moderate grower and a regular bearer; fruit scarcely of medium size, turbinate, regularly formed; skin smooth and fair, clear, bright yellow, with an occasional blush on the sun side; stalk an inch or more long, pretty stout, inserted with little or no depression; calyx small, closed, set in a basin slightly sunk; flesh white, buttery, sweet, and good; ripens first half of July.

Monongahela Beurre.—(Wakefields)—This very excellent pear originated here, from the Seckel, it is much larger than its parent and equally as good; the tree is hardy and forms a fine compact head, succeeds well on the quince—no garden should be without it; fruit of medium size obovate; skin a fine golden yellow, with a blush cheek; stalk pretty stout, an inch long inserted, even with the surface

or with a slight depression; calyx small, partly closed and set in a shallow basin; flesh white, buttery, juicy, and melting with a peculiar, rich, sweet, flavor, and like its parent; ripens gradually in the house for a month or more; ripens from the middle of August to the middle of September.

PEACHES.

Of this fruit we have several fine seedlings, some of them are very fine.

Goe's Golden Mammoth.—A very large, freestone, full fleshed peach, worthy of general cultivation; ripe in September.

Ball's Yellow.—As large as George the Fourth, and equally as good—free—ripe first half of September.

Ball's Claret.—A beautiful cling, of first quality, and largest size; this is one of the best clings with which I am acquainted; ripe first half of September.

D. HOUGH WAKEFIELD.

Monongahela Nurseries, Fayette Co., Pa.

Lancaster County Seedling Fruit.

Letter from the Fruit Committee of the Pennsylvania Horticultural Society.

MR. EDITOR:—Your valued favor of the 24th inst., together, with the box of fruit, was received to-day.

Please accept our cordial acknowledgments for giving us an opportunity of again examining the beautiful products of Lancaster. There is something in your soil, climate, or skill, in cultivation, which gives to your fruits a size and beauty that almost prevents us from recognizing familiar kinds when grown in your region.

The four specimens of Hosen Schenck from the premises of the Hon. D. B. Vondersmith, are noble specimens of this Pennsylvania pear. Two years ago, we received the same variety, without a name, from Dr. Eshleman, (who is doing so much for the advancement of Pomology in Pennsylvania;) we were pleased with it, and called it the "Eshleman." Being of large size, buttery consistence, and pleasant flavor, it should be extensively disseminated. Mr. Hoffs has taken a colored drawing of it.

The pears, No. 2, from Jacob Amwake, Esq., and called the butter pear, there must be some mistake about. They are evidently identical with the Hosen Schenck of Judge Vondersmith, and the specimens are equally fine.

"The pears, No. 3, Seedlings from John L. Wright, of Columbia," not being in the box, were probably accidentally left out. Could you not yet send them to us?

The six fine peaches had no numbers marked on them, or on the papers in which they were separately enveloped. We were, therefore, unable to discriminate between them. All, however, were clings of large size and good flavor.

The handsome apples from your garden we are inclined to think are large specimens of the Maiden's Blush.

The Gen. Hand plum, from the trees of Dr. Parry, Jacob Price, and Dr. Muhlenberg, we were much gratified at seeing again. This mammoth Pennsylvania variety is larger than the Washington, which it closely resembles in quality and appearance. It may be distinguished, however, from the latter, by the Gen. Hand having a larger stem. Like the yellow Magnum Bonum, it also has a fleshy ring in the cavity where the stem is inserted.

The Bottle Plum, a seedling from the Gen. Hand, is a strange looking and unique variety. It presents not a single characteristic of its parentage, being of a red color and of a long pyriform shape. As this plum was unripe, we should be happy to receive specimens of it again when it has arrived at a state of maturity.

The four other varieties of seedling plums we were pleased with, particularly with that from Messrs. John Bear and John Zimmerman's No. 2, especially those specimens of the latter that were grown by Mr. E. W. Beates.

With such convincing evidences of the capabilities of Lancaster for producing fine fruit, we sincerely hope you will be induced to send a strong delegation, with an abundant supply of your noble specimens to the American Pomological Congress which will assemble in Philadelphia on the 13th of September, and to the annual Exhibition of the Pennsylvania Horticultural Society, which will be held at the same place on the 15th, 16th and 17th of the same month.

Very truly yours,
W. D. BRINCKLE.
A. M. Spangler, Esq.

Reaping Machines.

MR. EDITOR:—In the present onward march of science it is gratifying to observe that agriculture claims no small share of its attention. It is equally gratifying to see what cautious, yet steady and certain application the farmer makes, (when convinced of their utility,) of the various improvements calculated to enhance the profit of his occupation. I have been induced to ask a place in your columns from the fact of witnessing with what rapidity machinery is made applicable to the use of the farm in this section of Pennsylvania. Last year ushered in the use of the grain drill, which was found to be of great practical utility to the farmer, in the regularity and depth of sowing, saving of seed, prevention of winter kill, and in various other ways; and this year we find the farmers of our beautiful valley making practical use of the grain-reaper in harvesting the fruits of their labors. Within a few weeks past there have been introduced into our valley, and put in successful operation several of McCormick's reapers, which meet the full expectation of the farmers, and accomplish all they are recommended to do. It is to the latter article of machinery that I now wish to call the attention of the farmer. And it would be well, here to

say, that I am not any way personally interested, and do not, for any individual interest, attempt to urge upon the farmer the use of the reaper. Of Hussey's, I am not able to say much, as I have not had an opportunity of witnessing its operations, although I have been told that it works very well. Let us enter into a calculation of the two modes of harvesting wheat, i. e., by the usual operation of the "man-power-er-cradle-reaper" and the "horse-power-grain-reaper." It has been ascertained here that "McCormick's reaper" by the day and with 4 horses will harvest 20 acres allowing 8 men to bind, shock, &c. By the usual mode 2 men will harvest 2 acres per day; so we see that while 8 men with the "reaper" will harvest 16 acres in one day: it will take the same number of men $2\frac{1}{2}$ days to harvest the same number of acres, in the usual way. And it is admitted that the "reaper" saves at least 1 bushel per acre, and many think $1\frac{1}{2}$. I think it would be safe to put the standard at 1 bushel per acre. Now, let us sum it up, and see on which side the gain will be in harvesting 16 acres. By the usual mode we have 8 hands $2\frac{1}{2}$ days at \$1.25 each day, \$25.00
Board of 8 hands $2\frac{1}{2}$ days, at $37\frac{1}{2}$ cents each day, 7.50

With the reaper we have, \$32.50
8 hands 1 day, at \$1.25 cents each, \$10.00
Board of 8 hands 1 day at $37\frac{1}{2}$ cts. each, 3.00
Use of team, 1.50
Use of reaper, 1.00 15.50

Add 1 bushel per acre and we have, \$17.00
16.00

The sum of \$33 gain in favor the reaper, \$33.00 in cutting but 16 acres. Does this not look surprising. But who that will give it a fair investigation, will not admit the fact? Is this not an important item in the expenses of the farm, and worthy the careful attention of every farmer? Surely it is. There are many instances where the grain is very heavy, or lodged, in which the reaper will do the harvesting with considerable more gain than above quoted, as it will cut lodged and heavy wheat as easy as wheat that will yield but 12 bushels per acre. Considering the advantages the great West has over the Eastern States, in the richness of her soil, and in the increasing facilities for transporting her products to fill our eastern markets, thereby crowding out in a measure, the products of our own States, and diminishing in price that which we are able to sell; would it not be well for all our eastern farmers, in order to cope with this great competitor, to apply the use of these, and all other machinery that will in any way reduce the cost of raising, and bringing to market the productions of the farm. The application of labor, saving machines in all the various operations of the farm, is a subject that demands attention, and one that is sadly neglected by the great mass of our farmers. C. M.

Wyoming Valleg, Pa., July, 1852.

The Hosen Schenck Pear.

MR. EDITOR:—Being sorely afflicted with the "Pear mania," and a little "cracked" on the subject of fruit in general, is sufficient cause for my delay in asking several questions touching the above subject, that interest me very much.

In your June No. appeared a very interesting article, which from a subsequent communication from your able correspondent, Mr. Garber, I supposed from him; in which, speaking of the *Fruit of Lancaster county* forty years ago, he mentions the Butter Pear and a "*Seedling from it superior to its parent*." Now, will you or he be so kind as to give a history and description of said Seedling?

What is the origin of the Pear mentioned editorially in the July No. p. 98, under the name of "Hosen Schenck, than which none is earlier or finer?"—About its earliness you certainly made a slight mistake!

I have been acquainted for several years with a very good butter pear which I supposed a seedling of Lancaster county, and as I first procured it from a tree grown by a person of my own name, it was some time so called, but generally enumerated as No. 9, Priv. Cat. This season, for the first time, I have in bearing the Hosen Schenck, and find them identical. I wonder very much if the seedling in Mr. Garber's mind is not also identical?

Will you be so kind as to investigate this matter, and let us have through the Farm Journal the result. Downingtown, Aug. 13th, 1852. J. G. E.

[Mr. Garber has promised to answer these inquiries in our next. We were slightly mistaken in regard to the time of ripening. It ripens about the latter part of August. In regard to its fine quality, however, we think we were right, as we know of no pear, unless it be the Bartlett or Seckel, over which we would not unhesitatingly give it the preference.]

Shelter for Stock in Cold Weather.

MR. EDITOR:—Although the warmth of the present season almost forbids the idea of writing, and more especially of writing upon the subject of keeping cattle comfortable in the winter season, I will yet attempt a few lines, detailing my experience on that subject.

The barn, or building rather, in which my cattle for a number of years were sheltered, (if shelter could be called) was in a very dilapidated condition. Expecting from year to year to be able to replace it with a new one, I delayed many little repairs, which I am since convinced it would have been true economy to make several years before. I know the animals suffered much from cold, and to compensate for their sufferings, I fed them well; but while pursuing the system a seeming necessity compelled me to adopt, I could not but observe, on comparing notes with my neighbors, that my cattle consumed considerably

more food than theirs, while at the same time their condition was not only no better, but scarcely as good. I attributed this fact to any other but the right cause. Knowing that some animals eat more than more than others, without improving in an equal degree, I presumed that mine were of this lean, hungry kind, and thus dismissed the subject from my mind.

Feeling somewhat stronger in pocket two years since, I built a new barn. The shelter it afforded my cattle was, as you may suppose, better than the old one. The feed given my cattle during the first winter was the same in quality and quantity as that of the previous winter; but I was surprised to find that in the spring, there was a decided improvement in their condition over that of the preceding spring. Last winter I found that I could keep them on at least one fourth less food than ever before, and as I am satisfied that they have not changed their natures, I cannot attribute this saving of food to any other cause than to the comfortable shelter provided for them in the new barn, during the cold weather.

I am aware that there are scientific principles upon which this change may be accounted for; but aspiring to no prouder distinction than that of a plain practical farmer, I leave scientific explanations to those more competent than myself, being content to record the simple fact that I save one fourth of my cattle's food by providing them with comfortable shelter during the winter season.

Cedar Farm, Pa.

J. HADDINGTON.

The Next Agricultural Fair.

MR. EDITOR:—In looking over your Farm Journal I see that the next Agricultural Fair is to be held in Lancaster, a place as suitable, I suppose, as could be found, being a fine agricultural district and easy of access from the different parts of the State. But my object not being to dwell upon the advantages or disadvantages of the location, you will permit me to throw out a few hints through your Farm Journal, and also to make some inquiry about some statements that I have heard; and in doing so, permit me to do it in my own way. The first hint is, we, country folks, are opposed to imposition. We do not wish to be invited to Lancaster as we were to Harrisburg, and charged treble or quadruple for lodging and board. I think if the inhabitants of Lancaster wish the Fair held there, they should certainly see that those coming from a distance should not be imposed on, unless their object be altogether to make money. One thing is certain—such conduct will soon rid you of a portion of those that would otherwise attend. I do not think it right for men to subscribe largely in order to obtain the location, and then take the advantage of necessity to enrich themselves thereby.

Again, is it true that the Society gives a higher premium for a goose than for a colt? The re-

port here is that Mr. Newcomer received a higher premium for the best goose than Mr. Brugh did for the best colt. Both of these men are from Franklin county; and if this is so, which I can scarcely credit, I would like to know the reason it is not—it should be contradicted; such reports being calculated to injure the Society and turn it into ridicule. There is nothing of a worldly nature that I would rather sustain than an Agricultural Society, and I have no doubt but it will be sustained in our State if it is carried on upon liberal principles; but if not, it must sink. The sustentation must come mainly from the farmers themselves, and being hard-fisted they do not generally deal in humbugs. It is quite probable I will be at the next Fair with a good number of my neighbors, should we get assurance that our necessity will not be taken advantage of.

SAMUEL THOMSON.

Scotland, Franklin co.

In our last we endeavored to satisfy the public mind that a spirit of liberality towards their visitors would characterize the conduct of the citizens of Lancaster during the holding of the State Fair.—We have had repeated assurances that such will be the case; so that, friend Thomson, we hope to see you and all of your neighbors with you.

In regard to the award of a higher premium to Mr. Newcomer than Mr. Brugh, a reference to the published "list of premiums awarded" proves that it is incorrect. The premium awarded to Mr. Brugh was given upon the recommendation of the Committee, they, under the published regulations, not having it in their power to designate the amount. The arrangements of the first Exhibition were necessarily imperfect. Enlarged experience will correct these imperfections, as reference to the premium list for the coming fair will show.

Clifton.

MR. EDITOR:—In your last number I observe you have given the pedigree of the Horse Clifton, (which took the premium at the last Agricultural Exhibition) together with a notice of one of his colts, a two-yearling, which was also there and sold by the owner at the time for \$200, which colt found his way since to Philadelphia, and changed owners at \$275.

I am pleased to say this must be changed so far as regards the sum sold for. In the changes made with this colt, he has given such satisfaction that the present owner of him would not take eight hundred dollars for him—ONE WHO KNOWS. C.

Philadelphia, Aug. 13, 1852.

BUCKS COUNTY AGRICULTURAL SOCIETY.—The annual Exhibition of this flourishing Society will be held at Newtown, September 29. We hope to be present, as this exhibition is generally one of the best held in Pennsylvania.

THE FARM JOURNAL.

Agents.

THE FARM JOURNAL may be had at the following places:—

W. B. ZIEBER, South 3d St., principal agent for Philadelphia.

W. H. SPANGLER,	Lancaster, Pa.
B. F. SPANGLER,	Columbia, Pa.
GEO. BERGNER,	Harrisburg, Pa.
H. MINER,	Pittsburg, Pa.
J. R. SHRYOCK,	Chambersburg, Pa.
H. M. RAWLINS,	Carlisle, Pa.
A. L. WARFIELD,	York Pa.

and of Booksellers generally.

UNPAID SUBSCRIPTIONS.—A number of our subscribers who were in arrears have complied with the request expressed in our last, for which they have our thanks. There are still a few left from whom we shall be happy to hear.

We have been compelled to omit several editorial articles as well as communications in the present number. They will appear in our next.

TO CORRESPONDENTS.—A REQUEST.—Persons sending in communications will please send their names with them. We have at this time several articles on file without signatures, which will appear so soon as the names of the writers are forwarded. We prefer that correspondents should write over their own names, but when this is not desirable, we of course will comply with their wishes; but we *must* know the name of the writer, if the articles are to appear in the Journal.

MEMBERSHIP IN THE STATE SOCIETY.—For the information of such persons in Lancaster county, as may feel desirous of becoming members of the State Society, we state that Geo. H. Bucher, Esq., of Hogestown, Cumberland county, is the Treasurer, and the person to whom application for membership should be made. Jacob Frantz, Esq., of Paradise, Lancaster county, is the Vice President for this District and as such is duly authorized to receive the fee of membership. All that is required on the part of applicants, is the payment of one dollar in advance, with the name of the applicant and his Post Office.

THE EAGLE PLOW.—Messrs. Savery & Co. of Phila. have sent us one of their No. 3 Eagle Plows, the value of which we have as yet had no opportunity of testing. This plow is one the most graceful (if we are allowed the term) implements we have ever seen, and but for the fact that it is a *right-hand* plow, could scarcely fail to become a general favorite. A full description of the implement is now on our files, but has been unavoidably crowded out. We will put it in our next.

State Fairs, 1852.

New York, at Utica, Sept. 7, 8, 9, 10.
Ohio, at Cleveland, Sept. 15, 16, 17.
Michigan, at Detroit, Sept. 22, 23, 24.
Canada West, at Toronto, Sept. 21 to 24.
Vermont, at Rutland, Sept. 1, 2, 3.
Pennsylvania, at Lancaster, Oct. 20, 21, 22.
Wisconsin, at Milwaukee, Oct. 6, 7, 8.
New Hampshire, at Meredith Bridge, Oct. 6, 7, 8.
Georgia, Oct. 18 to 23.
Maryland, at Baltimore, Oct. 26, 27, 28, 29.
American Pomological Congress, at Philadelphia, Oct. 13.
American Institute, at New York, Oct. 5.
American Institute, Exhibition of Stock, Oct. 19, 20, 21.

Rhode Island Society of Improvement, at Providence, Sept. 15, 16, 17.

The Pennsylvania Horticultural Society will hold their 24th grand autumnal Exhibition in the Museum building, Ninth, below Chestnut st., Philadelphia, Sept. 15, 16, 17.

MR. GOWEN'S DEFENCE.—In another part of this month's Journal will be found the reply of Mr. Gowen to some strictures by the late Editor of the "Horticulturist," on the subject of turning in green crops as a manure. The position taken by Mr. G. in his address before the Lancaster County Agricultural Society, last winter in relation to green cropping, has been the subject of a number of communications in the Farm Journal, in all of which opposite grounds are taken. In the article which we have copied, it will be seen that Mr. G. contends that a fair and impartial reading of his address will not warrant the inference that he is opposed to green cropping under all circumstances. In justice, therefore, to his views, we cheerfully give the article itself, as well as the remarks of the Editor of the "Horticulturist," a place.

MEETING OF THE EXECUTIVE COMMITTEE.—The Executive Committee of the State Agricultural Society met at Lancaster, on the 19th inst., for the purpose of examining the site selected for the Exhibition.—The Committee was unanimous in its expression in regard to the admirable adaptedness of the ground. After consulting with the Committee of Managers of the Lancaster Co. Society, in regard to the arrangements of the enclosure, and appointing the following Committees, the board adjourned:

Messrs. David W. Patterson, Benjamin Eshleman, John Miller, Jacob B. Garber, of Lancaster county, a Committee on behalf of said Society, to confer with a Committee of the Lancaster County Agricultural Society in making the necessary arrangements for the State Fair. Messrs. James Evans, Jacob Frantz, Christian B. Herr, Lightner Sharp and Joseph Koenigsmacher are the last-named Committee.

SALE OF VALUABLE REAL ESTATE.—If any of our readers wish to purchase superior property, we advise them to take a look at the superior farms offered for sale by Messrs. J. & C. S. Haldeman in this month's Journal. They are most desirable properties, and as such worthy the attention of capitalists and others.



The following at 37 cts. per dozen, and \$2 per hundred:

Myatt's Eleanor, Mammoth, Globe, British Queen and Prolific Hautbois; Lizzie Randolph, Black Prince, Jenny's Seedling, Iowa, Schiller, Burr's new Pine, Rival Hudson, Scarlet Melting, Columbus, and Scioto; Elwanger and Barry's No. 1. Monroe, Genesee, Climax, and Orange Prolific; True Bishop's Orange, Black Rock, Abyssinian Prince, Eberlein, Green and Flat Hautbois, Red and White, Bush Alpine and Elton Pine.

The following at 25 cts. per doz., and \$1 per hundred:

Large Early Scarlet or Early Virginia, Crimson Cone, Hovey's Seedling, Boston Pine, Hudson, Wiley, Methven Scarlet, Necked Pine, English White and Red Wood, White and Red Alpine, and Dundee.

Herbaceous Peonies of above 100 splendid Chinese double varieties, and Tree Peonies of 40 varieties.

Tulips, Hyacinths, Japan Lilies, and all other Bulbous Flower roots, including the White and Yellow Calochortus of California. Victoria, Colossal and other kinds of Rhubarb; Sea Kale and Asparagus, which can now be transported. The finest European Table Grapes, in pots, \$5 per dozen.

The following Strawberries have been rejected:

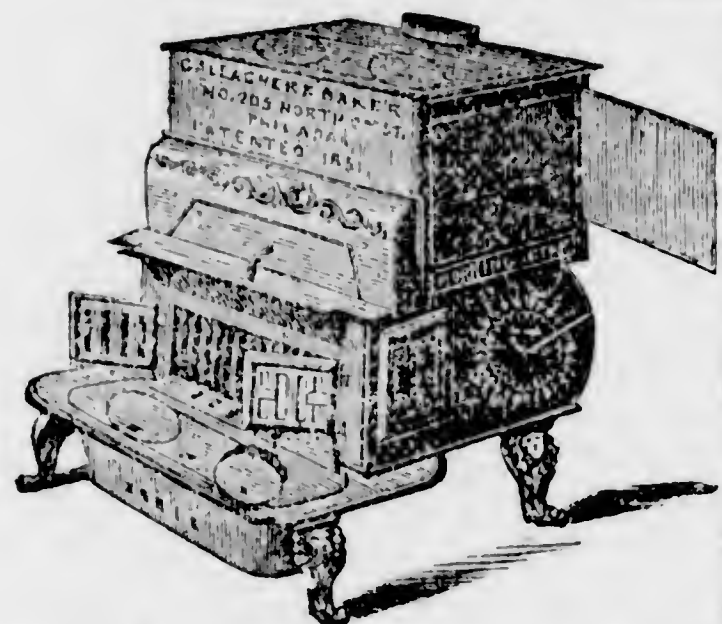
Richardson's Early, Late, and Cambridge; Burr's Seedling, Mammoth, Profusion, and Late Prolific; Deptford Pine, Myatt's Eliza, Lord Spencer, Old Pine, Cushing, Princess Alice Maud, Swainstone, Keen's Seedling, Duke of Kent, French Cucumber, Royal Pine, Buist's Prize, Downton, Knevett's Pine, Royal Scarlet, Princesse Royal, Prince of Orleans and above 40 others as stated in our Catalogue.

All will be well packed and forwarded as directed.

Descriptive Catalogues of all Trees and Plants with prices will be sent to post paid applicants who enclose stamps.

[September 1st, 1852.]

THE GREAT STOVE WAREHOUSE.



Persons in want of Stoves of any description can be accommodated by calling at the establishment of the subscriber, North Queen st., Lancaster, Pa.

Having greatly enlarged his Warehouse, and having also entered

into an arrangement with the celebrated Stove Manufacturers of Troy, Albany, New York, Philadelphia, and Lancaster, he is prepared to sell Stoves for the Parlor, Kitchen, Bar-room, or Store, at Manufacturers prices.

He also begs leave to state that he is the sole Agent in Lancaster for the CELEBRATED GLOBE STOVE, and would caution the public against the imitations of this celebrated Stove, now in the Lancaster market. As they are unquestionably the best Cooking Stove in use, it is important that those who are looking for such an article should know that the only place where the genuine one can be had is at his establishment. He is able to refer to more than fifty respectable families in Lancaster co., where there Stoves are now in daily use. Wherever they have been tried, they have superseded all others.

G. D. SPRECHER,
Sept. 1, 5m.] North Queen st., Lancaster.

TO FARMERS—SALINE FERTILIZER.

This preparation is designed to furnish the soil the various mineral or inorganic materials abstracted from it by plants in the process of vegetation.

It contains a large proportion of the salts of Potash, Soda and Ammonia, combined with Bi-Phosphate of Lime, Animal Charcoal, and other fertilizing matter; the whole forming a highly concentrated manure.

In thus offering a new article to the attention of farmers, the relative value of which remains to be tested by experience, it is desired not to venture upon any assertions respecting it, calculated to excite expectations, which perhaps might not be realized; knowing, however, that the principal constituents of this compound have been proved to be highly valuable separately, it is confidently believed that their combination in proper proportions in the "Saline Fertilizer" will form an excellent manure.

DIRECTIONS FOR USE.

The Fertilizer should be applied at the rate of two barrels to the acre, and spread broad-cast on the surface.

If, on opening the barrels, the salts should be found adhering together in lumps, they should be broken, say with the back of a shovel, upon a floor or smooth surface, and if convenient, a little good dry mould may be added, and well mixed before spreading.

For Wheat or rye, one barrel per acre may be used before sowing, and lightly harrowed in, and the other applied as a top dressing early in the spring, at the commencement of the first thaw.

Upon Grass it should be sown broad-cast, and, if possible, when the ground is wet, or when there is a probability of rain, to dissolve the fertilizing salts; generally late in the fall or early in the spring, will be found to answer best.

Upon Corn, it would perhaps be advisable to apply one barrel in the hill, and one broad-cast.

If added to the manure or compost pile, the Fertilizer will doubtless increase greatly the efficacy of the mixture.

The experience of agriculturists will probably suggest other modes of employing it, as soon as they become satisfied of its utility. It should not, however, in any case, be mixed with quick-lime, which will cause a loss of Ammonia, nor should it be buried deeply in the soil.

Price, \$2 50 per barrel.

Manufactured and for sale by

CARTER & SCATTERGOOD,
Office, 54 Arch st., Philadelphia.

June, 1852)

PUMPS, FIRE ENGINES, CAST IRON FOUNDRIES, &c., &c.

The subscriber manufactures Double-acting Lift and Force Pumps, (perpendicular and horizontal,) of any size or capacity, which from their simple construction are well calculated for Factories, Mines, Railway Water Stations, Tanneries, Breweries, Irrigation, Hydropathic establishments, or any other situation where water is required.

VILLAGE AND FACTORY FIRE ENGINES.

Having a double-acting force pump. They are light, easily handled and worked by few men.

Cistern and Well Pumps, for in or out doors.

Garden Engines, with a small size double acting lift and force pump. Arranged with or without suction. They are so adjusted that one person can wheel them from place to place, and are well calculated for agricultural and horticultural purposes.

Ornamental cast-iron Fountains, of various styles and prices. Copper Rivetted Hose of all sizes, Hose Couplings, Stop cocks, Lead and cast-iron pipes, &c.

I am now ready to receive orders and build Steam Engines from 3 to 15 horse power, portable or stationary, horizontal or perpendicular. I shall build them in as simple a style as possible, combined with strength and sure of getting at every part, and adapted for any purpose required. When an engine is required for raising water of any amount, I can adjust the pumps in a compact form easily got at, and disconnected from the engine, when not required for pumping. In many situations steam is the most profitable mode of raising water, as the engine can be used for other purposes to advantage.

Also prepared to receive orders or give information upon Lathes, Planers, Presses, Shafting, Pulleys, and machinist tools in general, from the firm of Messrs. O. Snow & Co., Meriden, Conn.

Any communications by mail will have immediate attention.

G. B. FARNAM, 34 Cliff st., near Fulton, N. Y.

AGRICULTURAL IMPLEMENT WAREHOUSE.

No. 65, Chesnut street, Philadelphia.

THE subscriber offers for sale, Hay, Straw, and Cornstalk Cutters; Cornstalk Cutters and Grinders; Corn Cob Crushers and Grinders; Corn Shellers and Separators; Root Cutters, of the most approved patterns, warranted to cut, by hand power, from one to two bushels of roots per minute; Bamborough's celebrated Grain Fans; Grain Cradles, Revolving Hay Rakes, self-sharpening Plows, various patterns; plain point Plows of various patterns; Subsoil Plows, Harrows, Cultivators or Hoe Harrows, Churns, Seed Drills, Corn Planters, Corn Shellers, Scythes, Grass Hooks, Spades, Shovels, Rakes, Hoes, hay and manure Forks, &c., &c.

Orders received for any and every Agricultural Implement now in use, which will be furnished at manufacturer's prices.

D. LANDRETH,

August, 1852.)

No. 65, Chesnut st., Phila.

TO FARMERS, AGRICULTURISTS AND GARDENERS.

CHAPPELL'S IMPROVED FERTILIZER—Substitute for Guano. The subscriber would call the attention of the Farmers of Pennsylvania to the chemical compound or manure, manufactured by him for the renovation of "worn-out lands," and known as "CHAPPELL'S IMPROVED FERTILIZER."

This article is composed of the same materials as are found by analysis in the ash of plants. It consists of a mixture (in proper proportions) of Bi-Phosphate of Lime and Magnesia, (or bones dissolved in Sulphuric Acid,) Sulphates of Ammonia, Potash, Soda and Lime, Animal Charcoal, Silicates of Potash, Alumina and Magnesia, and, as these constituents indicate, is intended to restore to the soil all the inorganic materials abstracted by vegetation. It has been ascertained that a soil containing a sufficient quantity of these salts, is always fertile; and their absence constitutes what is called "Worn-out Land." The analysis of rich soils shows a good supply, and poor land a deficiency.

The inorganic matter abstracted from the soil by the growth of different crops is the same, varying only in proportion; it is therefore evident, that if we supply to the soil a sufficient quantity of each material thus abstracted, we restore its fertility.

The correctness of the above has been fully sustained by the use of the Fertilizer, the last season. It has been used on poor land, and twenty-five to twenty-eight bushels of wheat obtained, with a superior crop of clover. As a top-dressing on wheat, eight bushels additional yield has been realized. On the spring crops of corn, oats and clover, the yield has been doubled. It has been used on the same field (as an experiment) with the best Peruvian Guano, both on corn and oats, and the yield has resulted in favor of the Fertilizer. The most respectable reference can be given of its value and effects on poor lands.

This article having been used with such favorable results, the manufacturer now offers it to agriculturists, with the full confidence that it will largely repay for the outlay, and that it is the cheapest manure they can use.

On very poor land, two barrels to the acre should be applied; on that in better condition, one and a half barrels. It is calculated, in using two barrels, you supply to the soil sufficient salts for a rotation. As a top-dressing, one barrel put on after a rain, or when the land is wet, and in all cases near the surface and not ploughed in, broad-cast and harrowed when practicable. The Ammonia in this preparation is a Sulphate and therefore not volatile as in Guano; the Bi-Phosphates and Sulphates being soluble, the rain dissolves them, and they thus saturate the soil with prepared food, ready for the nourishment of the plant; being rich in Sulphates, they are powerful absorbents of Ammonia from the atmosphere.

One fact peculiar to this compound is that such portion as may not be abstracted from the soil the first crop, remains in the ground until consumed by after vegetation. One barrel of Chappell's Improved Fertilizer contains as much Phosphate of Lime as is contained in 300 lbs. Peruvian Guano; therefore, by the application of two barrels (400 lbs.) to an acre, the ground is supplied with as much phosphate of lime as if 400 lbs. best Peruvian Guano had been used, and the Fertilizer is furnished at less than half the cost.

We add a few certificates. We could add others, but this mode of advertising is expensive—these should be sufficient to recommend the Fertilizer to the favorable notice of all farmers, desiring to improve their lands.

The following from gentlemen of high standing, testifies to the action of the Fertilizer, compared with Peruvian and Patagonian Guano. (From Com. T. Ap. C. Jones, Washington.)

NEAR PROSPECT HILL, VA., April 29, 1852.

P. Stockton Chappell—Dear Sir:—I suppose I am indebted to your kindness for a copy of the Baltimore Sun, of 17th March, containing notice of transfer of "South Baltimore Chemical Works" to you. I should have sooner acknowledged your attention, but was anxious to see a further development of the effects of your Fertilizer before I wrote. You may recollect that about a year ago I purchased the first Fertilizer, (a ton) with which I experimented with barley and corn, at the time of planting, and on wheat and grass as a top-dressing, all in comparison with Peruvian and Patagonian Guano, at equal cost. The effect on the barley was decidedly in favor of the Fertilizer beyond all question; while on the growing crops, the difference was scarcely discernable last year was seeded with Florence wheat on the 3d day of October, 1851; the ground was in the finest heart, 200 lbs. of Peruvian guano having been ploughed in after following, but before seed-guano was carefully sown broadcast transversely to the spring barley, which separated the Peruvian and Patagonian guano, and on the course of the drill crosses obliquely the belt of about sixty feet.

My wheat, like most wheat of the season, is but middling; my land was ploughed very deep, and, although it is high and rolling, nevertheless, the wheat on the part on which the Fertilizer was used at the time of sowing the barley, in April, 1851, is not only promising than the wheat on either side of it, notwithstanding the double dressing of guano to one of the Fertilizer. I have also ten acres of corn ground in wheat, on which your Fertilizer was used and sown in comparison with Peruvian guano and repeated at the time of sowing the wheat; the Fertilizer so far holds its own, and should I live to see it, I will give you particulars of the harvest.

The conclusions to which my mind is brought by the foregoing experiments are:—

First—That at an equal cost, with less labor, and for greater convenience in its application, your Fertilizer is fully equal to the average quality of Peruvian guano when first applied, and much more durable in its effects on after crops.

Secondly—That six hundred pounds (two barrels) of the Fertilizer, incorporated with the soil with the harrow before seeding or planting, is better than 300 pounds of Peruvian guano, to which the farmer is compelled to add, with very considerable labor, one and a half bushels gypsum, the cost of which will bring the guano, at the lowest rates, to

Whilst cost of 600 lbs. fertilizer, \$7.50
6 00

Difference in favor of fertilizer,

Very respectfully, &c. \$1.50

T. AP. C. JONES.

BLOOMFIELD, Baltimore co., March 23d, 1851.

P. S. Chappell—Dear Sir:—In answer to your note of this date, asking for my experience in the use of your Fertilizer, I have but time to say, that two or three years ago I used but two or three barrels by way of experiment. Last year, I used upwards of seventy, and this year I will drop it on every hill of corn that I plant. My experience of its use on corn, in the hill, is most unquestionably and decidedly favorable. Very respectfully, yours, &c.

RICHARD J. WORTHINGTON.

BALTO. COUNTY, March 22d, 1851.

P. S. Chappell, Esq.—Dear Sir:—I have used your Fertilizer in many ways upon both wheat and corn, with great success. Yours, respectfully, EDW. W. WORTHINGTON.

(From Rev. Dr. Johns, Rector of Christ Church, Baltimore.)

To Dr. P. S. Chappell—Dear Sir:—I have just returned from a visit to Delaware, where I had an opportunity of observing the effects of your Agricultural Salts, in the production of wheat. They were applied to two fields—one of twenty acres—the other of twenty-eight. The former is uniformly good—the latter, a part has been damaged by the growth of blue grass, but my impression is, the crop, on both, will be one-third greater than it would have been without the fertilizing article. The grain has not yet been threshed out, and consequently the above opinion rests merely on general observation of the crop immediately before harvest, but I am satisfied it will not be found incorrect. I think it very certain you will have several orders for the Salts, from the vicinity referred to. Very respectfully, Your friend and ob't serv't.

Dr. Johns purchased, last fall, thirty barrels; as he used it as above on forty-nine acres, not more than 1 1/2 barrels could have been applied to the acre.

I have used "Chappell's Fertilizer" upon potatoes with decided benefit, and am now fully satisfied that it is the best and cheapest manure I can use for that crop.

My first trial was alongside of stable and guano manure; the Salts gave me the best and largest potatoes. Where the Salts were used, the land was thin, and on a hill side; I used about 14 lbs. to the acre in the furrow, with the usual attention. My crop fully came up to my expectations; the potatoes were large, and of superior quality, and the crop fully one-third greater than any of my neighbors, whose land was much richer than the piece of land I used for my potatoes. The same piece of land I have put down in wheat; the furrows can be seen distinctly some distance off—showing that the Fertilizer is still acting in the soil.

I shall use the Fertilizer this year on my potatoes, being fully satisfied that it is the cheapest and best manure that I can use for that crop. Several of my neighbors intend using the Fertilizer this year. I have paid great attention to the cultivation of potatoes for the Baltimore market for many years, and from my experience of two seasons with the Fertilizer, can recommend it with confidence upon that crop.

I will add that I sold my potatoes at \$1.06 per bushel; my neighbors sold at 93c—the difference in price owing to the difference in quality. Yours truly, LARKIN YOUNG.

Balto. co., near Harrisonville, March 15.

Extract of letter from Dr. E. CHANDLER.

CHESTER COUNTY, Pa., May 25, 1852.

On the 20th of August, 1850, I applied 150 lbs. of your Fertilizer on a fourth of an acre of poor land, that had not been farmed for forty years previous to the application of the Fertilizer. I had the ground ploughed in April and strewed over it 10 bushels of lime, and about the same of ashes, and chip dirt from wood yard, harrowed it well with cultivator, and when I put on the Salts I sowed in Turnip Seed, Timothy and Clover and finished off with a brush. The crops of Turnips was 70 bushels, that at 25 cents brought \$17.50, and at the rate of \$70 per acre. Last summer (1851) the crop of good hay was 1,100 lbs., or at the rate of 2 1/2 tons per acre, and now (May, 1852) the appearance of the grass on the same is far better than it was last year. Many persons have been to see this small, though satisfactory experiment, and are becoming convinced of the benefits of your Fertilizer.

Price—\$3 per barrel, and containing 300 lbs.

Pamphlets containing certificates can be obtained by addressing P. STOCKTON CHAPPELL, 145 Lombard st. Baltimore. N. B. To avoid disappointment, farmers desirous of a supply for their Fall Crops should order early.

July 1, 1852.

FARMERS! LOOK TO YOUR INTEREST!

STILL GREATER IMPROVEMENTS IN GRAIN

DRILLS.

PRICE REDUCED TO SIXTY DOLLARS!

SEED AND GRAIN PLANTER.
MOORE'S PATENT

This Machine was Patented July 2, 1850, and has received the highest premium at all the Exhibitions where it has ever been contested; including New Castle County, Delaware, Agricultural Society, October 9th 1850; Philadelphia and Delaware County Agricultural Society, October 17th, 1850; Maryland State Agricultural Society, October 23d, 1850, and October 24th, 1851, and Michigan State Agricultural Society, September 25th, 1851.

THE ABOVE DRILL is not liable to get out of repair, is exceedingly simple in its construction, will sow point rows in all irregular shaped fields, and possess superior advantages to all others in the ease and quickness with which it can be regulated to sow any desired quantity of Grain per Acre, while the draft upon the horses is twenty-five per cent. lighter, and consequently with the same labor, can seed one-fourth more ground per day than with most other machines now in use. The objection so common to Drilling Machines of becoming Choked if the seed is not perfectly cleaned, is entirely obviated in the Simple and Peculiar construction of this Drill, as white

MYERS' CHEMICAL ANIMAL MANURE.

That of offering to the public a Manure which comprises all that could be wished—its cheapness and surprising effects in producing larger crops in any kind of soil—is lasting and enduring qualities.

The subscriber offers this Manure to the public with a full knowledge of its powerful effects upon ground where used. This Manure must take its precedence above all others; its adaption to all kinds of soil, and every particle of fertilizing properties being preserved in the mode of manufacture, render it at once cheaper than any other manure used for all kinds of crops. Its effects are wonderful. A supply always on hand, WM. MYERS, Seventh Street near Germantown Road, Kensington, Phila.

READ THE FOLLOWING CERTIFICATES

GERMANTOWN, October 8, 1851.

To Mr. Wm. Myers—Sir—Having tried your Chemico-Animal Manure upon potato ground, this season, I find it produce one-third more and larger potatoes than the best horse manure on the same ground. WM. K. COX.

The following additional certificate just received, speaks for itself. WOODBURY, N. J., 10th mo. 20th, 1851.

I have used upward of 1000 bushels of WM. MYERS' ANIMAL MANURE, on corn, potatoes, turnips, melons, and some other crops during the present season, and am satisfied that it is an economical and powerful manure, for turnips, radishes, and other root crops—my experience has shown it to be especially valuable. DAVID J. GRISCOM.

SPRING FIELD FARM, Cecil County, Md.

Mr. Wm. Myers—Dear Sir—I manured with your Chemico-Animal

caps and short straw will not interfere in the least with the regular distribution of the seed. It is warranted to distribute the seed evenly; to sow any quantity per acre commonly sown broadcast; to not cut or break the grains; to be well made with good materials and durable with proper care.

Having sold about 400 of the above Drills the past season, all of which met with the unqualified approbation of the purchasers; and after careful and thorough experiments, which have resulted in Still Greater Improvements, we now feel warranted in saying that Moore's Patent Seed and Grain Planter improved, is superior to any other machine for the purpose, now in the market.

Having made arrangements to furnish 1000 of the above Machines for sale the coming Season, we shall be prepared, at all times, to supply orders without delay.

All orders addressed to the undersigned will warrant prompt attention.

LEE, PEIRCE & LEE.

August, 1852.] *Ercildown P. O., Chester Co., Pa.*

mal Manure about 38 acres of the poorest land on my farm, and put half in Oats, and the balance in Corn. Although it was got in quite late, and the Season very unfavorable for the Corn crop generally, yet notwithstanding, I can say that it is decidedly the best Corn I ever raised, although I have farmed for 20 years, and have had good Corn land, and Manured well, as I thought, in the old way. While my neighbors' Corn was quite yellow and leaves curled up with the drought, mine was green and growing rapidly; therefore, I consider it one of the most valuable manures I ever used, and shall take pleasure in recommending it to my neighbors and others. Yours respectfully, E. M. SEELY.

SIDLE'S HUB, AUGUR AND BOX REGULATOR.

The subscriber residing in Dillsburg, York county, Pennsylvania, has invented a new and improved Augur for the boring of hubs, and setting the boxes of wagon, carriage and other vehicle wheels for which I have obtained letters patent.

The Augur will bore both ends of the hub at the same time, or either separately—and is the most useful and important invention of the age for inserting wagon boxes and the only Machine in existence by which they can be inserted exactly true—and is so perfectly simple in its construction, and constructed on such just mechanical principles, that it cannot possibly get out of repair.

With this Augur a set of boxes can be inserted in a few minutes—where under the old system it requires hours to perform the same amount of work.

Persons wishing to purchase Territory or Shop rights will please address the subscriber, who will sell on terms that will enable the purchaser to make money. HENRY SIDLE. Dillsburg, April, 1852—4f

CORNELL'S IMPROVED SELF-REGULATING HORSE POWER,

On the endless chain plan, for which letters patent were obtained in February, 1852, is now offered to the public with the assurances that it will be found to possess advantages over all others now in use. It will operate at a LESS GRADE, will give more power at the SAME GRADE, and with less labor to the horse than any other. The comparatively small elevation at which this power operates efficiently, relieves that ruinous amount and kind of labor which other powers generally impose upon horses, and it is believed that its advantages in this important respect alone, if it possessed no other, must give it character, and bring it into very general use. But this result is further promoted by a most happy combination of forces which gives to it an exceedingly light and easy motion. The platform drums are large, and the arrangement of the whole driving apparatus upon friction rollers reduces the friction of the machine to such a slight amount that an almost inappreciable fraction of the power exerted by the horse will put the whole in motion. It is therefore peculiarly adapted for driving light machinery, where an excess of speed would endanger the machinery driven; and yet the solidity and strength of the power are such that it is equally well adapted to the driving of the heaviest kinds of machinery.

But it possesses other advantages—the Power is under the control of a GOVERNOR OR SELF-REGULATOR. As Horse Powers are generally constructed, no efficient means are provided for regulating the speed, or guarding against accidents arising from undue velocity. A portion of the machinery driven, or of the Power itself, may be thrown out of gear, and from this cause or some other, a greatly increased velocity may be given to the remaining parts of the machinery, and an increase of speed dangerous to the limbs of the horse. All such difficulties are entirely obviated by a Governor and Friction Brake, which regulate and control all undue velocity of the Power. Cornell's Power thus constructed, regulated and controlled, is singularly capable of the highest execution which such machinery can attain, and with safety. It is adapted to one or more horses, as may be desired.

Although but very recently produced, a large number of the Powers have been sold in a community in which those of Wheeler, Emery & Co., and others have been in use.

First Premium at Philadelphia County Exhibition.

At the Exhibition of the Philadelphia County Agricultural Society, held at the Rising Sun, October, 1851, the highest premium was awarded to Cornell's Power, although in competition with that of Emery & Co., and others.

The power exhibited above was new, and made without reference to such public exhibition, but, although subjected to the close examination of the very competent gentlemen who composed the official members of those associations, the result has been of the most flattering kind.

First Premium at Bucks County Exhibition.

Cornell's Horse Power was exhibited at the Bucks County Exhibition held at Newtown, October, 1851, and obtained the highest premium, although in competition with Wheeler's and others.

Additional information can be obtained by letter as above directed, and the Power is always open to inspection at the Depot, No. 156 Vine street, below Fifth, Philadelphia. The Patentee is open to negotiation for the sale of Township, County or State Rights. August, 1852.—3m.

TO THE FARMERS OF PENNSYLVANIA.

SHRIVER & McLEAN,
PRODUCE & COMMISSION MERCHANTS,
34 S. Water Street, PHILADELPHIA.

Respectfully inform Farmers, Millers and others, that they are prepared to attend to all business entrusted to their care, with dispatch and promptness, and with an eye to the interest of those who may patronize them.

FRESH GARDEN SEEDS.

PEAS, Beans, Cabbage, Cucumbers, Celery, Radish, Lettuce, Beets, Paraisip, Carrot, &c. Grown and warranted fresh and genuine, by D. LANDRETH, Agricultural and Horticultural Implement and Seed Warehouse, 65 Chesnut street, Phila. [August, 1852.]

CHOICE SHANGHAI FOWLS.

THE subscriber offers for sale a few pairs of choice young Shanghai fowls, sired by the celebrated cock "Washington," now owned by Dr. McIntosh, and reputed to be the best fowl in Pennsylvania. Also a few pairs of White Shanghaes.

F. H. WHITNEY,
No. 314, Market st., Phila.
August, 1852.)

DRILLS! DRILLS!! DRILLS!!!

WE are now manufacturing the LARGEST and BEST ASSORTMENT OF SEED PLANTERS ever offered to the public; several varieties of which we have constantly on hand. Those interested are respectfully invited to call, examine and satisfy themselves of their merits.

We have so improved and simplified our Drill, as to enable us to sell it at the following reduced rates:

One with seven tubes and wooden Seed Roller, quantity regulated by Screws, \$50 00
For each additional Tube, 7 50
Seven Tabled do, iron Seed Rollers, regulated with screws 85 00
Each additional Tube, 10 00
Seven Tabled do, Single Hopper, and Patent Iron Seed Rollers, which, by the movement of a single screw, is regulated to seed any desired quantity per acre, 85 00
Each additional Tube, 10 00

In addition to the foregoing, we are building a large number of Slide Drills, which have been satisfactorily tested, and are warranted decidedly superior to any other Slide Drills in the market, particularly in the even distribution of the Grain upon rough and hilly ground; also in the facility and precision by which it is regulated to sow any desired quantity per acre, as well as in the lightness of draft, and general simplicity and durability.

For one of these Machines with seven Tubes, \$60 00
each additional tube, 5 00

The above Machines are Warranted not to Cut, Break, or Waste Grain; to be made of the best materials, in a substantial and workmanlike manner, and to do the work more perfectly than any other. They are not liable to choke with white caps or straw, and are suited to rough and hilly, as well as smooth and level land.

Owing to the peculiar form of our depositing tubes, they run easier and free themselves from filth better than any others.—These Tubes are supplied with Reversible Steel Points, either end of which can be extended as they become worn. The simultaneous throwing into and out of operation of the Seed distributing and depositing apparatus, (which we have patented) renders our machine capable of being managed with much more ease and certainty, particularly in seeding point and other irregular lands, than any other Seed Planter.

We also manufacture Horse-Powers and Threshers, Clover Hullers, with and without Fans, Horse-Rakes, Corn-Shellers, &c. Also, Steam Engines and Mill Work. Screw Cutting done to order; Castings of every description, of the best quality, furnished at Wilmington Prices.

S. & M. PENNOCK,

Kennet Square, Chester county, Pa.
P. S.—Paschall Morris & Co., West Chester, are Agents for any Machinery we build.
July 1, 1852.—3m.

GUANO AND PLASTER.

THE subscribers offer for sale at the lowest market rates, 1000 Tons Dry Patagonia Guano,
500 " Government Peruvian Guano,
500 blbs. Ground Plaster.

The quality of the above is unsurpassed, and can be recommended with confidence to farmers and others in want of the articles. A liberal deduction made to Country Merchants.

ALLEN & NEEDLES.

No. 22 & 23, S. Wharves, First Store above Ches. st., Phila.

R. BUIST,

NURSERYMAN & SEED GROWER,

HAS always on hand at his seed Store, 97, Chesnut Street, Philadelphia, a large stock of Seeds of his own growth, a very important item to purchasers, as he is a practical grower, and has been engaged in his profession over 30 years. His nursery ground is amply stocked with Fruit, Shade and Ornamental Trees, accurately named and properly cultivated. Every article sold at the lowest rates, and warranted to be as represented.

Seed Store, 97 Chesnut Street, Philadelphia. Nurseries and Seed Farm, Darby Road, two miles below Gray's Ferry.
June 1, 1851.

R. BUIST



PENNSYLVANIA FARM JOURNAL

VOL. 2.

LANCASTER, PA., OCTOBER, 1852.

NO. 7.

THE FARM JOURNAL.

A. M. SPANGLER, EDITOR.

Agents.

THE FARM JOURNAL may be had at the following places:—

W. B. ZIEBER, South 3d St., principal agent for Philadelphia.
 W. H. SPANGLER, Lancaster, Pa.
 B. F. SPANGLER, Columbia, Pa.
 GEO. BERGNER, Harrisburg, Pa.
 H. MINER, Pittsburg, Pa.
 J. R. SHRYOCK, Chambersburg, Pa.
 H. M. RAWLINS, Carlisle, Pa.
 A. L. WARFIELD, York Pa.
 WM. DOMER, of Altoona, Blair County, is our authorized agent for Blair and Centre Counties.
 A. E. BRADY, Cumberland and Perry Counties.
 S. PRESTON, Kennet Square, for Chester and Delaware Counties.
 JONATHAN DORWART, Lancaster County, and of Booksellers generally.

500 AGENTS WANTED.

We are desirous of securing one or more competent agents in every county in Pennsylvania, to canvass for the *Farm Journal*. Our terms are liberal, and we are assured by well-informed friends in every portion of the State, that competent and active agents could not fail to succeed well. We therefore invite persons desirous of taking agencies to address us (*post paid*) on the subject; furnishing us with satisfactory reference, and stating in what particular county they are desirous of canvassing.

Agents at the State Fair.

We shall be glad to secure the services of a number of efficient agents at the State Fair, for the purpose of soliciting subscriptions to the Journal. Persons who are willing to engage in the work, can obtain information in regard to terms, &c., on application at our office, either by letter or in person.

The State Fair.

As this will be the last opportunity we shall have before the State Fair, we again most earnestly invite the friends of agriculture and the mechanic arts to become contributors. That the display will be an immense one we have every assurance, not only from our own citizens, but from those residing in distant States. We have just received a letter from A. S. Bingham of West Cornwall, Vermont, which informs us that he will attend the exhibition with a choice flock of his celebrated Merino Sheep. A few of these will be disposed of, if purchasers can be had. Mr. B.'s merinos took the premium at the last State Fair. We have also letters from every section of Pennsylvania, advising us of delegates who will be in attendance, and stock and articles preparing for exhibition, so that those who purpose attending merely as spectators, will be gratified with a large and varied display.

Unpaid Subscriptions.

Those of our subscribers who have so promptly complied with our request to remit the amount standing against them on our books for subscriptions, will please accept our thanks. To those still in arrears we renew the request contained in our last, viz: that they will have the kindness to settle up at once. The number is not great, but as we are desirous of moving upon the cash principle as nearly as possible, we hope our request will be complied with.

EULOGY ON MR. DOWNING.—At the earnest request of a number of our subscribers, we publish entire, the eulogy on the character of the late A. J. Downing, pronounced before the National Pomological Society, by Hon. M. P. Wilder, of Massachusetts. It is the tribute of a warm personal friend to the memory of one who has endeared himself to every American citizen, and as such, it will be read with deep interest. Its length has crowded out a number of interesting articles, which will be presented in our next.

Pennsylvania Poultry Society.

The poultry breeders of Pennsylvania have at length become sufficiently infected with the hen fever to form themselves into an association, the object of which is to improve our poultry generally. We are right down glad to hear it, and wish the enterprise god-speed; as we are perfectly well satisfied of the fact that no department of our domestic household require or deserve it more. There are those who sneer at the efforts making to improve the character of our poultry generally, regarding the movement as one originating with speculators, and designed to entrap the unwary. Now while we are free to admit that most shameful impositions have been practised by some breeders upon unsuspecting persons, we are by no means willing to believe that all who have been engaged in rearing poultry are of this class. That the movement will result in the improvement of our poultry we have not a doubt, just as the introduction of improved breeds of cattle, horses, &c., has been the means of raising the character of other portions of our farm yard stock.

We have not seen the constitution of this new society, but understand that the membership fee is \$1,—that there will be an annual exhibition—that the first one will be held in Philadelphia on the last Tuesday in October, at the Rising Sun, Phila. Co.,—that an address will be delivered on the occasion—that H. J. Brown, M. D., has been selected as the orator, and that the following is a list of the officers: *Pennsylvania Poultry Society, organized in Philadelphia County, September 24th, 1852.*

PRESIDENT.

James M'Clintock, M. D., Phila. county.

VICE PRESIDENTS.

Rev. S. A. Burnstead, Philadelphia county,

Mr. E. K. Cope, " "

" James Gillespie, " "

" Aaron Clemens, " "

" William Ball, Bucks " "

David Taggart, Esq. Northumb'd " "

A. M. Spangler, " Lancaster " "

J. M'Knight, " Allegheny " "

Sam'l Wagner, " York " "

J. K. Eshleman, M. D. Chester " "

M. M. Newcomer, " Franklin " "

Thomas Lyon, M. D. Lycoming " "

Mr. E. P. Lutz, " Columbia " "

CORRESPONDING SECRETARY.

H. J. Brown, M. D., Phila. county.

RECORDING SECRETARY.

Robert Smith, Esq., Philadelphia county.

TREASURER.

Morris Keen, Philadelphia county.

BOARD OF MANAGERS.

William Wistar, Philadelphia county.

" Morris W. Heston, " "

William K. Morris, Esq., " "

Jos. Priestly, M. D., Northumb'd " "

Mr. Jas. C. Cornell, Bucks " "

H. N. M'Allister, Esq. Centre " "

The Board of Managers has especial care of the Annual Exhibition; it has, indeed, entire control of it. The officers of the Society are, ex-officio, members of it.

CORNELL'S PATENT SELF-REGULATING HORSE POWER.—We had an opportunity a few days since of witnessing the operation of this superior horse power, and if we are competent to pronounce upon its merits, feel no hesitancy in recommending it to the attention of farmers generally. It possesses, we think, a great many advantages over the powers in general use, such as a greater amount of power, at a less elevation—a self-regulator, which controls its speed in a most effectual manner,—and other points which will best be understood by an examination of the machine itself. It is Mr. Cornell's intention to exhibit it at the State Fair and challenge every other power on the ground to a fair trial, in order that the superiority may be credited to where it properly belongs. That is the right spirit.

Arrangements for the State Fair.

The arrangements for the coming Exhibition are fast verging to completion. The Chairman of the Committee of Arrangements has politely informed us that the Lancaster County Society have contracted for, and have everything ready for putting up the fencing, shedding, &c. Large handbills have been issued by the committee of arrangements, inviting the attendance of the public from all quarters.

The same committee have made arrangements with the forwarding men of Lancaster, who, with the lumber and coal men, have kindly promised all the sidelings (of rail-way) that they can spare, and will charge no storage for articles sent to the Exhibition or any expenses, except what may be actually paid by them to persons, assisting to unload.

DAVID HARTMAN, is appointed receiver at the railroad, and any article sent for exhibition, *not* accompanied by the owner, if directed to him will be taken care of and properly deposited on the exhibition grounds.

The grounds will be arranged in the best and most complete manner, and the hotel keepers and citizens of Lancaster are making every preparation to make visitors comfortable.

PENNSYLVANIA MUTUAL LIVE STOCK INSURANCE COMPANY.—Attention is asked to the advertisement of this company. We are assured on the best authority, this the association in a reliable one, and if so cannot fail to prove useful. It being the only one in Pennsylvania, we presume, persons desirous of insuring their stock, will give it preference over those located in distant States. An agency will shortly be established in Lancaster.

Original Communications.**THE PEACH TREE BORER.****Egeria exitosa—Female.**

This insect belongs to a destructive family of Lepidopterous diurnia, and for many years has been known as the common enemy of the peach, and hence has received the appellation of "Peach Tree Borer." Although its destructive character may be fully known to all peach growers, yet the insect itself when fully matured may not be so generally known.

The above illustration represents the female borer, and is the only one to which that name can be strictly applied; (the male, I presume, never approaches the peach tree again after emerging from the chrysalis. It was described by Thomas Say, years ago, in the *Journal of Natural Sciences, of Philadelphia*, and again, with colored figure, in his *American Entomology*. Dr. Harris has also given a history and description of it in the fifth volume of the *New England Farmer*, and in his *Treatise on Insects injurious to vegetation*, page 233.

The body of a specimen in my collection is three-fourths of an inch in length, and the wings, if properly extended, would reach one inch and three-eighths. I have also another specimen, not so large. The color is a steel blue, with a broad orange-colored belt around the middle of the abdomen. The front wings are opaque, and the hind ones transparent with a tolerably broad opaque margin. The antennæ are three-eighths of an inch in length and slightly curved at the ends.

The male differs from the female in having all the wings transparent, with an opaque bar running across the front pair, about an eighth of an inch from the end; the body more slender and cylindrical, and terminated by a prominent tuft or brush of hair; and other minor differences not important here to mention. I do not know precisely the period the female deposits her eggs,—without a doubt sometime during the summer. Dr. Harris says its transformations take place from June to October, consequently the foundations for new colonies are laid at different times within those periods. On one occasion, I found the mature insect in tolerable abundance upon the blossoms of buckwheat in common with wasps and other Hymenopterous insects, for which I at first mistook it,

and which it somewhat resembles, especially the male.

We cannot, however, be much in error, as to the seat of their destructive operations upon the peach tree; their presence being generally indicated by a flow of gum from the parts affected. Their attacks seem to be most injurious when made in the main trunk of the tree near the roots. I have seen large numbers of whitish grubs of different sizes, varying from half an inch to an inch or more in length, early in the spring, cut out of the butt of a peach tree, extending down into the larger roots, amongst masses of gum and gnawed wood, and penetrating in some places half an inch into the woody part of the tree. These, I feel persuaded, were the larvæ of the peach tree borer, the eggs of which had been deposited at different times the previous season; although I made no particular examination of them at the time. Although this would seem to indicate that "there are several broods produced by successive hatches, yet, there is but one rotation of metamorphoses consummated within the year."* Borers of all sizes may, therefore, be found at any season of the year, more or less advanced. That they should pass one winter before they appear in the perfect or winged state, seems however, to be necessary.

Various remedies have been tried and recommended for the destruction of the grub of the borer; by removing the earth from the base of the tree and after cutting and scraping all that can be possibly got out, to fill the cavity around the tree with tan, lime, ashes, or strong decoctions of tobacco; but all these remedies seem to be more or less injurious to the tree itself. I have more confidence in the plan of Dr. Harris, recommended by him as early as the year 1826, which is here submitted, especially as I have

* I have now (Sept. 20,) under observation two grubs or larvæ of the peach tree borer. One is full half an inch in length, and the other is a scant quarter inch. The body is divided into thirteen segments: upon the first, second and third of which are three pairs of legs; the fourth and fifth are without legs; the sixth, seventh, eighth and ninth have each a pair of prolegs, surmounted by two rows of small hooks turned inward; the tenth and eleventh segments are also without legs, but the terminal one has a pair of prolegs armed as those aforementioned. The head is large and retractile, or capable of being drawn about two-thirds into the first segment. The mandibles or jaws are short and strong, of a dark brown or nearly black color at the ends; but a light brown at the base; the head is also a light reddish brown. The body of the smaller specimen is white, that of the larger one is tinged with light red; but this arises from the contents of the stomach seen through it.—After voiding a light red excrement, the part of the abdomen thus evacuated is clear white. There are a few white hairs distributed over the whole body and diverging from the head and anal segment. The insect voided a yellowish liquid from its mouth, but I could not discover that it had any odor.

in my own experience, no better one to recommend. It is as follows, and, no doubt, would well pay a trial of it:

"Remove the earth around the base of the tree, crush and destroy the borers and cocoons which may be found in it, and under the bark; cover the wounded parts with a composition of common clay; and surround the trunk with a strip of sheathing paper eight or nine inches wide: which should extend two inches below the soil, and be secured with strings above. Fresh mortar should then be placed around the root, so as to confine the paper and prevent access beneath it, and the remaining cavity filled with unexhausted loam. This operation should be performed in the spring or during the month of June.—In winter the strings may be removed, and in the spring following, the trees should again be examined, and the protecting application be renewed."

Lancaster, Sept. 18, 1852. S. S. R.

For the Farm Journal.

Fruit Growing in Pennsylvania.

The fruit growers of Pennsylvania during the last forty years have so far improved in their modes of culture and selection of varieties, as somewhat to increase the resulting profits. But the growing of fruit has been considered a branch of general farming, of less importance than raising of grain or breeding of cattle, and therefore has not received the attention necessary to make it highly profitable.

In many sections of the country, especially those remote from large towns, fruits were frequently raised from seedling or ungrafted trees, and therefore a very small proportion were good or first rate varieties, but apples and pears were abundant of such kinds as were suitable for cooking and for cider.—Fine seedling varieties were occasionally originated, and sparingly propagated by grafting, and thus became partially known in small districts, and almost unheard of beyond those limits. It is true, that there have been many persons, who have given considerable attention to the selection and cultivation of fine fruits; but they have labored in the cause separately; with little connexion with each other, and the knowledge and experience gained by each in his life time, was chiefly lost to the community at his death.—William Coxe, of Burlington, New Jersey, published a work in 1817, describing 130 varieties of apples and 65 of pears, and some other fruits, but I judge that its circulation was limited in Pennsylvania, and that its effect was not very perceptible, except that some Jersey varieties were introduced through its means. No work of that kind had a large circulation here till about 1846, when A. J. Downing published his "Fruits and Fruit Trees of America," which seems immediately to have awakened the attention of the public to

the growing of fruit and created a demand for fruit trees of the varieties described, probably by shewing that such existed, and that they might be obtained. The varieties described were principally those known and cultivated in New York and New England, a small proportion only of them being in cultivation here. The result has been, that our own best varieties have been neglected, and a great number of kinds have been introduced from the eastward; some of which have fully answered the expectations of those who introduced them, and others have not; but neither the success nor the disappointment, has abated the increased attention to the culture of fruit. The experience that has been had with varieties introduced from other places, has produced the belief that there are many varieties of fruits that are justly reputed to be of the first quality both in flavor and productiveness in one locality, that suffer change in those respects when placed in other situations; and the effect of climate seems to be shown in the earlier ripening of fruits when grown in a more southern latitude. Thus some varieties that are regarded as winter fruits in the northern part of N. England become autumn fruits in Penn'a. and further south. There is therefore less danger of being disappointed when we select fruit trees of varieties that have originated or have been sufficiently proven in our respective neighborhoods than when we procure them from distant places.

Agricultural Societies have been established in several counties in eastern Pennsylvania, within a few years past, and at their annual exhibitions held in autumn, there has usually been fruit exhibited of the kinds ripe at that season. By means of these exhibitions and of the inquiries and researches made by amateurs and by the fruit committees of these societies, a considerable number of fruits of first qualities have been discovered and brought into cultivation; and the past success authorizes the expectation that inquiries more carefully made and widely extended, will bring to public notice fruits of first quality suited to our climate, soil, situation, and exposure, superior to many kinds at present in cultivation. To aid these inquiries the members of the respective societies should be invited to forward to the monthly meeting of the society, or to their executive or special fruit committee, monthly, or in shorter periods, during the fruit season, such seedling or little known varieties of fruit as may be deemed of excellent quality and highly deserving of cultivation; and as we now cultivate more than a sufficient number of varieties, no new one should be adopted without it possesses some valuable property rendering it more worthy of cultivation than the variety to be discontinued to furnish it a place.

Perhaps there is nothing that will stimulate fruit

growers, generally, to increased activity, so much as a confidence that it will be profitable as a business. The person whose apples are of inferior quality, unfit for market as fruit, and who gathers them and makes them into cider to sell at the lowest price to the vinegar merchant, may well regard fruit-growing as unprofitable. For him it is so; but he who raises the finest fruits, in large quantities, and obtains for them the highest market prices, will discover that fruit culture is much more profitable than grain culture, and will be disposed to abandon it. But in order that fruit-growing shall be productive of profit, care must be taken to adjust the quality and quantity to the demand and state of the market. To those who reside near to large towns, and attend the market once or oftener in each week, it is important to have the several varieties of first quality fruits ripening in succession during the season; so that at each market day a portion of fruit may be ready for sale; and those who raise fruit for home consumption only, should pursue the same course, so as to have a continuous supply of the best fruit sufficient for liberal use and enjoyment. But those who live remote from large towns, and do not attend market frequently; if they engage in raising fruit for profit, will find it to be their interest to restrict their cultivation to a few varieties (probably better to a single one) of each species, so that the entire crop of each kind of fruit, may be gathered and sent to market at the same time. In this case, varieties must be selected that will bear transportation well; of good merchantable quality, and such if possible as have an established reputation in the market to which they are sent. Such has been the course pursued by some of the fruit-growers of New York State residing from 100 to 300 miles from their principal city.

Downing in the "Fruits and Fruit Trees of America," states that one orchard near Esopus, on the Hudson river contains 2000 bearing Newtown pippin trees. The mode there pursued, as I have been informed, is, when the season arrives for taking in the fruit, a sufficient number of men are employed to pick it off the trees by hand, carefully, and having barrels brought into the orchard, the fruit is carefully packed and taken to the North River, and sent by steamboat to New York city, and when stored it may be sold to retailers there; or if it can be more advantageously disposed of at Boston, Philadelphia, or even at London or Liverpool, it is in order for shipment without loss of time. Thus the market of the world is open.

The course generally pursued in Pennsylvania has, with some exceptions, been different. Orchards contain many varieties of apples, some, little known beyond the neighborhood in which they originated.—The fruit gathered (sometimes without proper care,)

is put into bags and taken to Philadelphia in wagons, becoming more or less bruised in the transportation, and upon arriving there, it must there be sold for consumption; because merchants will not go into the market to and purchase it for shipping, on account of the difficulty of getting sufficient quantities together of well known and well reputed kinds; of the trouble of packing in casks; and of the injuries already received in the bringing to market. Philadelphia now has communication with the interior of the State by railroads and canals that will compare favorably with the like advantages enjoyed by New York, and it is important that the growers of Fruit in Pennsylvania turn their attention to the advantages thus opened to them.

I will not trespass further at this time, but desire to be permitted to add something on this subject hereafter.

ALAN W. CORSON.

Montgomery county, 9th Month, 16th, 1852.

Seedling Fruit.

Mr. Editor:—In the July number of the "Farm Journal," you take strong ground in favor of southern Pennsylvania as a fruit growing region. You call upon those "having the evidence in their possession for a confirmation of your assertions." I will give you a short history of one of the seedling fruits mentioned in your article, which you may insert if considered worth the space.

The "*Hosen Shenk Pear*," as you designate it, is generally known as *Shenk's Pear*, it is a seedling of about forty years duration. Mr. John Shenk, of Manor township, in this county, whom I well remember, with his wide pantaloons, his nether members being apparently thrust into two three bushels bags. It was a frequent remark of his, that during his lifetime, those same trowsers had been three times in fashion. He was, generally speaking, a somewhat singular character. His farm was greatly neglected, barely raising grain sufficient to supply the family, his time being almost exclusively devoted to the raising and planting of strange trees and plants, and *smelling water*; that is, going about the country, wherever called for, with a *twig of hazel*, as a "divining rod," to discover subterranean water-courses prior to the digging of wells. The truth or falsity of this "science" I shall not now attempt to substantiate; suffice it to say, that Mr. Shenk was generally successful, and was looked upon as an oracle in this matter by the community. I give you the above imperfect sketch of the man in order to a better appreciation of the merits of the fruit, bearing his name.

Mr. Shenk planted three seeds found in one pip or cell of a pear, (the kind now unknown, but think in all probability it was the old butter pear, or St.

Michaels, Doyenne of the French,) about the year 1805 to 1810. The three seeds produced trees, and all bore fruit, two of them being worthless. This one, being planted near the smoke-house, first went by the name of *smoke-house* pear, and the fruit being so superior, soon became well known all over this part of the country.

The tree is a vigorous and strong grower, far outgrowing the old butter pear, and in comparison with that fine old and now almost extinct variety, is superior in every respect; the tree is larger and more thrifty, the fruit larger, and if possible, more luscious; the tree a great bearer in a favorable soil and situation. It ripens from the middle of August to the middle of September, according to the seasons.

You designate it as one of the *earliest*, this is an error, as there are many varieties ripening before it.

J. B. GARBER.

Floral Retreat, August 24th, 1852.

The Diller Pear.

MR. EDITOR:—Inasmuch as you were personally present at the recent sessions of the American Pomological Society, and heard the eulogiums passed by the most eminent pomologists and committees, upon the Diller Pear—most probably a native of your county—it will be superfluous for me to say any thing in its praise.

The reports of that society as well as a committee of the Chester County Horticultural Society—who know a good pear from a persimmon—will *probably* introduce to the notice of cultivators a pear which has *very few* superiors at any season?

A description and linear drawing to assist in its recognition, will appropriately appear in your journal. I have therefore prepared as carefully as the few specimens left, and my knowledge of it, will enable me, the following, which I hope may appear when it suits your convenience.

Diller, among the very best August pears and deserves a place in every collection in this State. It is named after the person on whose property it grew and by whom it was most probably raised from seed, one hundred years since. Tradition says he brought the tree or scions from Germany; but this is extremely doubtful, because of long voyages and want of horticultural knowledge. It is more probable he brought seed of some favorite pear, planted it, and raised this tree. Its growth much resembles the Bloodgood, short jointed, wood-reddish-brown, not a rapid grower but bears regularly and abundantly. Fruit of medium size, obovate irregular or one-sided, thickening abruptly into the stalk, which is an inch long and obliquely inserted. Skin, at maturity, golden yellow, sprinkled, and one side mostly covered, with light cinnamon russet. Calyx mostly open, set in a slight smooth depression. Flesh

yellowish white, buttery with rich sugary luscious flavor: a little gritty at the core which is small. Seeds long black and pointed.

JNO. K. ESHLEMAN.

Downingtown, Chester Co., Pa., Sept. 20th, 1852.

[We are ready to endorse any thing our friend the Dr. chooses to say in regard to the Diller Pear; well knowing that his fine taste in all that relates to pears constitutes him an excellent judge. We tasted it in Philadelphia and consider it unsurpassed by any other with which we are acquainted. The drawing was placed in the hands of the engraver, but at too late a date to have the cut in time for the present number. We will have it ready for our next. Ed.]

West Chester Horticultural Exhibition.

This affair is now on hand, and in order to be in time for the next issue of the Farm Journal, I anticipate the regular report, by giving a slight sketch.—It is generally conceded to be the best display yet made by this Society, particularly in the departments of fruits and vegetables, which would be creditable to any exhibition in the country. Indeed, it would appear as if Flora and Pomona were becoming wearied with their long sojourn amid the rough and rocky soils and inhospitable climate of our friends of the Bay State and regions roundabout, and were about to wing their way to establish their headquarters in our more southern and congenial atmosphere. Very certain it is, from the exhibition here and in Philadelphia, that the land of Wooden Nutmegs and of Pears (par excellence) must concede hereafter, that as regards the latter, she is despoiled of her laurels, and that while in respect to the nutmegs, we do not even *hope* to equal her, we may safely challenge her to show finer Bartletts, Duchesse d'Angoulêmes, St. Ghislains, Seckels, and other fine varieties.

Of the large contributors of Pears, Dr. J. K. Eshleman, A. Marshall & Co., Thomas Harvey, Jonathan Baldwin and Paschall Morris & Co., exhibited from 25 to 43 varieties each. Finer or better flavored specimens were never shown. The premium for the best dozen was awarded to Dr. J. K. Eshleman, for St. Ghislain, for the best quarter peck to same for Bartlett's.

Of apples there was a large display, and remarkable specimens in size and quality of some of the new and fine varieties, as well as those more generally known. I have never seen Baldwins and Russets to equal those of the growth of Richard J. Downing, near Downingtown, in this county. A. Marshall & Co., exhibited 71 varieties of apples.—Joshua Embree 60, and received the premium for the best display. R. J. Downie, 42 varieties. Jonathan

C. Baldwin 32, and H. Darlington, 32 varieties, and there were several other smaller contributors.

Of peaches there was not so great an abundance as usual, but several plates were shown of extraordinary size and quality, including some new seedlings. The premium for the best display of fruits of all kinds, was awarded to A. Marshall & Co.

Too much cannot be said in praise of the vegetables, as regards size, variety, and quality. Single specimens of cabbages, beets, tomatoes, egg plants, seemed as if grown to supply the tables, not of a small family, but a small neighborhood. It is questionable however, whether such monsters are equal in flavor to those of smaller size. The first premium, for the best display was awarded to Josiah Hoopes, for 82 varieties; the second to Paschall Morris & Co., who exhibited 75 varieties.

In the flower department, the first premium was awarded to Paschall Morris & Co. In their collection we observed fine specimens of achimenes, also, Veronica Lindleyana, Habrothamnus Elegans, Fuschia Syringiflora arborea, Forrenia Asiatica, Pentas Carneae, Mariettia Glabra, Plumbagos, Fuschias, &c. They also received the first premium for the best 12 Verbenas, and for their display of 35 new and choice Dahlias.

This firm also exhibited 120 specimens of Evergreen Trees and Shrubs, many of them new and rare varieties, which attracted much attention. Among them was Cupressus Funeris, Arancaria Imbricata and Braziliensis, Deodar and Lebanon Cedars, Cryptomeria Japonica, Pinus Insignis, Pinus Douglasii, Taxodium Sempervirens, 15 varieties of Hollies, 15 of Junipers, several of Taxus, &c.

Of Bouquets and Moss Baskets there was a good collection, and the tout ensemble of the whole exhibition was highly creditable to the Society and to the county of Chester. Many of our native and seedling Fruits, give promise of great merit, and only require to be known to be properly appreciated. Enough has been done to prove that in this county, and in our own State, the different kinds of fruit can be grown equal to any other section of the Union, and much better than in many—nothing being wanting but attention to this as a branch of the business of our farms, the same as we bestow on other crops, and a proper understanding of the principles of Fruit Culture. Why cannot we have here as in Ohio, a State Pomological Society?

OBSERVER.

Shall we have a State Pomological Society.

MR. EDITOR:—Returning from our attendance at the meeting of the National Pomological Society, a friend—one of the most devoted and successful fruit growers in our State—asked, "Why can we not have a State Pomological Society in Pennsylvania?"

and we now repeat the inquiry, Why can we not? There is no good reason why we should not have such a society, and a very great many cogent ones why we should. The recent meeting of the National Pomological Society in Philadelphia, has, we are pleased to observe, had the effect of opening the eyes of our own fruit growers to the fact, that while our eastern friends deserve the palm for endless variety of pears, Pennsylvania certainly takes the lead in all that constitutes real excellence. With our Eastern friends, rarely any thing is done by halves. Whether in chickens or cattle, notions or pears, those who lead the van never stop short of a *complete assortment*. This feature in their character was strikingly illustrated at the National Convention. The great point in competition appeared to be, not who shall display the finest pears? but who has the greatest number of varieties? The simple fruit growers (like ourselves) from the interior—who though we knew that French pears abounded in endless variety, had never before had an opportunity of examining so many different kinds—gazed on the varied display in utter amazement. By this we would not be understood to say that we were amazed at either the beauty or excellence of the pears exhibited, but that so many of the boasted French pears were in reality so little worthy of cultivation. True, many of the specimens exhibited were far from being matured, and perhaps, had an opportunity of tasting their flavor been given, a majority of them would have passed muster as "good," and some well known varieties as *first rate*; but the halo of glory which had hitherto invested French pears, departed from the minds of many upon first sight. Has the season been unpropitious? We think not. Has Boston skill in pear cultivation degenerated? Not if we are to believe their journals. Have Boston cultivators of the pear ever succeeded in bringing French varieties to the perfection with which they are grown in France? This has been repeatedly claimed for them, and if the claim has been truthfully advanced, then in our humble opinion we must go farther than France for pears superior to the Bartlett, Seckel, a few standard French varieties, and a host of our own natives, among which we are proud to enumerate the Diller and Hosenschenck, the King-sessing and Brandywine, the Ott and the Pennsylvania pear. We do not by this design to underrate the energy and skill of the gentlemen who contributed so largely of eastern pears. Their spirit is worthy of the highest commendation. We honor them for the zeal they have manifested in the cultivation of this delicious fruit, and thank them for the opportunity afforded us of examining the products of their laudable emulation. But while we thus "render into Cæsar the things which are Cæsar's" we

cannot forbear the expression of our honest opinion, that we have a sufficient number of native pears of the most delicious character—ripening at all seasons from the earliest to the latest—to supersede the necessity of importing more from abroad. Let those who have the means and inclinations, stock their grounds with all the different varieties, but to such persons as are desirous of securing truly valuable fruit, we say, stick to the old standard kinds.

But to return to the point whence we started in the commencement of this article, and from which we have so widely diverged; “Shall we have a Pomological Society in Pennsylvania?” We hope there will be but a single response to this query—a universal *Yes!* and that immediate steps will be taken to effect an organization. It may be urged as an objection that there already exists a State Horticultural Society. True there does, and a noble one it is; but it does not precisely meet the wants of the fruit growers of the interior. It is too local in its character, although it extends the most cordial invitation to fruit growers in every section to participate in its transactions. Although in existence for many years, it is clearly manifest that there are thousands of choice native fruits within the limits of our State, the merits of which have never been known beyond the immediate vicinity in which they originated, and it requires a new organization—a more general feeling of interest than has hitherto manifested itself, to bring these treasures to public knowledge. A State Fruit Society would best develop them, and the holding of annual or semi-annual exhibitions, in various sections would have the effect of infusing a spirit of emulation, which could not fail to be productive of the very best results to the fruit growing interest. We again put the question, “Shall we have a Pennsylvania Pomological Society?” If any are opposed to the proposition, we shall be glad to hear from them through the Journal. J. G. B.

[We heartily second the motion of our correspondent, for the immediate organization of a State Pomological Society. The readers of the Journal will remember that from the first, we have asserted the superiority of Pennsylvania fruits, and contended for such an arrangement as would best develop their character and particular localities. It is a source of gratification to us to find that we are beginning to be sustained in the position we have taken. Every one who attended the sessions of the Pomological Society, could not fail to have been struck with the immense superiority of Pennsylvania fruits exhibited. There was perhaps not such an endless variety, and not as many contributors as there should have been; but enough was seen to convince every one that we have within our borders all the elements of a first rate fruit growing district. We therefore

hope that immediate steps for the organization of a State Pomological Society will be taken. Who will take the lead?—Ed.]

Advantages of Thorough Tillage.

MR. EDITOR:—A century ago, Jethro Tull advocated with all his powers, the theory, that the soil might be rendered fertile, merely by effecting its complete pulverization. While practice has proven Tull to be wrong in expecting such great results, it has proven also that to a very considerable extent the author of “Horse Hoe Husbandry” was right.—Indeed it may be asked whether his system was not as nearly correct as that pursued by the majority of farmers at the present day, who plow shallow, harrow slightly, never use the roller, and endeavor to make a cart load of manure answer for an acre of ground. But as my object is not to institute a comparison between Tull’s and this modern “skinning” system, but simply to show the advantages arising from a complete pulverization of the soil, permit me to enumerate briefly what some of these advantages are.

It is well known to all vegetable physiologists, that after a certain period, roots do not grow by a general distension of their tissue, but by the addition of new matter to their points, and that these points are exceedingly delicate and very liable to injury. The important functions these *spongelets* perform, in feeding the plant, clearly indicate the necessity of the greatest care on the part of the cultivator, to put his soil in such condition as will best enable them to discharge these functions properly. Now what is this condition. It is evidently to keep it in such a degree of pulverization, that the greatest possible amount of nutriment for the growing plant, may be absorbed by the delicate spongelets or feeders.—Again, as a square yard of soil contains more nutritious matter than a square foot of the same quality, it is evident that if the roots of a plant are enabled to penetrate every portion of that square yard as freely as they could have the square foot, the advantage derived by the plant would be greatly increased. The fibrous roots are too delicate to penetrate the clods that abound in too many of our newly seeded grounds, consequently, all the fertilizing properties contained in those lumps are lost, and the plant suffers.

Hear what Jethro Tull says upon this point. “I have had the experience of a multitude of instances which confirms it (good tillage) so far, that I am in no doubt that any soil, be it rich or poor, can ever be made too fine by tillage, for one cubical foot of this minute powder may have more internal superficies, than a thousand feet of the same or any other earth, tilled in the same manner; and I believe no two arable earths in the world, do exceed one another in their natural richness twenty times, that is, one

cubical foot of the richest is not able to produce an equal quantity of vegetables *ceteris paribus*, to 20 cubical feet of the poorest; therefore it is not strange that the poorest, where, by pulverizing, it has obtained 100 times the internal superficies of the rich untilled land, should exceed it in fertility.”

While I do not endorse Mr. Tull in all that he advances in the above paragraph, I do think his reasoning highly satisfactory and conclusive. If it will not hold good between the very richest, and the very poorest soils, it certainly will in those of nearly equal quality.

If by thorough tillage the internal superficies of the soil is increased an hundred fold, is it more than reasonable to suppose that the growing plant will be much more vigorous, (because better fed) than in the other case. Were there no other reasons in favor of thorough tillage, those already given are sufficient to convince every reasonable farmer of the immense benefits which must result from it. As I have, however, already exceeded the limits I intended when I commenced, I shall reserve the balance for another article.

J. P. ADAMS.

Laurel Grove, Pa., 1852.

More about the New Evergreen.

MR. EDITOR:—In answer to your invitation to communicate farther in reference to that *new evergreen*, I would just state that I am unable, I think, to add much to what was contained in a former communication; however as several letters have reached me lately enquiring particularly concerning it, I will now give as minute a description of its growth, appearance, &c., as my observation will justify me in doing. This evergreen seldom attains a height of more than two feet. A central stalk does not usually pass perpendicularly upwards, though sometimes this is the case. The branches generally spread out, and leave each other at the surface of the ground running from two to three feet and even farther occasionally, from this common origin, making an angle with the ground of about fifty degrees.

The stems in appearance are not unlike the Scottish Fir, having a buffy color, and principally covered with leaves. In structure the leaf resembles the common Hemlock, but it is a great deal larger and of a deeper green, and its appearance is more glossy and luxuriant. It bears no flower as I am aware of.—One of your correspondents mistook the remarks you made in reference to that flower I sent you, as applying to the Evergreen. The soil in which it is found is of a light loamy nature, and it is generally shaded by surrounding trees. Should any wish to see specimens of the leaf and branches I will hold myself in readiness to accommodate them by application to me by mail.

Hartstown, Pa.

Very truly yours,
A. McLEAN WHITE.

A gentleman thoroughly acquainted with our native evergreens, to whom the specimen sent was submitted, thinks it the *Eastern White Pine*, and the flower the *Hydrangea Arborea*.—Ed.]

Plowing in Dry vs. Green Clover.

MR. EDITOR:—I have read with interest the remarks of James Gowen, Esq., also those of Mr. J. W. of Kishacoquillas, on the subject of plowing down green clover. On all subjects of such consequence to the farmer, it is of the first importance that accurate and well digested ideas should be placed before the public. Although Mr. Gowen is quite scientific enough in his remarks for all practical purposes, it is evident his inferences and conclusions are drawn with less care and circumspection, than is evidently due to a subject of so much importance to agriculture. J. W.’s remarks are purely practical, and as I am well acquainted with the gentleman, I can fully endorse his remarks, but at the same time would beg leave to point out what I conceive to be a want of precision in his statement. He says, he cut down his clover “when it was about fit to cut for seed.” Then the stalk and head are dry, and nearly, if not altogether divested of their sap, and yet he calls it plowing down *green* clover. Now my own experience has been, that when I plowed in clover when it was green and in full bloom, on stirring the ground afterward, I could scarcely observe any trace of rotten clover. The clover being in a green and pulpy state, my own impression was that it had become as Mr. Gowen remarks, “mere acidulated water,” and left the field in a condition more like a corn stalk fallow, than a cloverfield—rather souring than benefitting the land. But when I adopted J. W.’s method, of plowing in dry clover, at about the same stage of ripeness as that described by him, I found on stirring the ground that the field had the appearance of being covered with rich black looking manure,—the clover not entirely disappearing as in the former case. It was, however, pretty thoroughly decomposed, and as this system has never failed with me, in a good season to produce a good crop of wheat, I am led to give it the preference over the other. Whenever there is too much sod or blue grass to admit of stirring, I found that the rotten clover did equally good service underneath, so soon as the roots of the wheat fairly penetrated it. In hopes that some of your more scientific writers on agriculture will explain the relative value of green clover and dry in the formation of food for wheat,
I remain yours.

J. A.

Union Dep., Millin Co., Pa.

J. A.’s experience stands in direct opposition to that of our best authorities. Prof. Johnson, says:

We have seen in the preceding lecture, how important air and water are to the decomposition of

organic matter. Now, green vegetable substances contain within themselves much water, and undergo decomposition more readily therefore, than such as have been dried, and are more immediately serviceable when mixed with the soil.

In the sap of plants also there generally exist certain compounds containing nitrogen, which not only decompose very readily themselves, but have the property of persuading or inducing the elements of the other organic matters, with which they are in contact, to assume new forms or to enter new chemical combinations. Hence, the sap of plants almost invariably undergoes more or less decomposition even when preserved from the contact of both air and water. When this decomposition has once commenced in the sap, it is gradually propagated to the woody fibre and other substances of which the mass of the stems and roots of the plant is composed. Hence, recent vegetable matter will undergo a comparatively rapid decomposition, even when buried to a depth beneath the soil—and the elements of which it is composed will form new compounds more or less useful to living plants, in circumstances where many forms of even partially decomposed vegetable matter would undergo no change whatever.

Further—when green vegetable matter is allowed to decay in open air, it is gradually resolved more or less completely into carbonic acid, which escapes into the air and is so far lost. But when buried beneath the surface, this formation of carbonic acid proceeds less rapidly, and other compounds—preparatory to the final resolution into carbonic acid and water—are produced in greater quantity and linger in the soil. Thus by burying vegetable substances in his land in their green state, the practical man actually saves a portion of the organic food of plants, which would otherwise so far run to waste.

Grain Weevil in Barns.

MR. EDITOR:—Your correspondents, Mr. Samuel Mumma of Dauphin, and A. of Chester county, are both right as to the plan for the destruction of this pest to the farmer, and let me confirm their statements by saying that nothing *but* starvation will drive them from the premises, one year's *stacking out* is sufficient, if at a considerable distance from the barns.

Mr. M. recommends "before putting the hay in the barn, that it should be swept clean, in order to disturb the weevils as much as possible." This is entirely useless as regards the weevil, but is nevertheless commendable as regards cleanliness, and weevil or no weevil, should be attended to by every farmer who has the least ambition to see his farm buildings in proper order.

Mr. A. says, "there are various ways of preventing them from eating the grain after it is thrashed; the best (he believes) is to sprinkle dry slacked lime among it, as it is placed in the garner." I at one time had some seed wheat infested by them, which I soaked in strong brine for six hours, then spread it on the barn-floor to dry; next morning found the wheat alive with weevils. I then sifted air-slacked lime over the heap and mixed all together. The disturbance caused them to leave in a hurry, after the

grain remained quiet for a few hours, however, they went to work again as if nothing had happened. I then took the grain to the field and sowed it without loss of time.

The fact is, by stacking the grain for one season, until all fermentation is over, say some six or eight weeks after harvest; you may then take it to the barn, and should there be any "old residents" lurking about the crevices, they may *live* on it for a while, but are incapable of *breeding*, and as the old generation dies away annually, there are none left to take their place.

It is the fermentation of the grain and straw which takes place in the mow soon after housing, that hatches out the young broods. If the old stock can get no access to the grain to lay their eggs *previous to this heating of the grain in the mow or stack*, "their occupation's gone." J. B. GARBER.

Translated for the Farm Journal.

Experiments in Potato Culture.

On a piece of land which had been turned in the fall of 1850, and manured and ploughed in April 1851, thirteen plots each containing ten square rods, the soil of which was of similar character and quality, were measured off, and on the 29th of May planted with forty pounds each of potatoes, nearly alike in size and all of the same kind. The potatoes came up well, were first harrowed and afterwards cultivated with the hoe, and moderately hilled. When they came into blossom, a series of experiments was commenced by mowing off the stalks on one sett of the plots in succession, and taking up in order the crop produced on a corresponding series on which the stalks had not been mown, so as ultimately to ascertain the comparative yield, and of course the benefit or injury resulting from a removal of the stalks prior to the ripening and harvesting of the crop at the usual period.

Stalks mowed off on plot No.	Potatoes taken up on plot No.	Yield in pounds of 40 sq. rods.
July 23, 1	2	16
Aug. 6, 3	4	73
" 20, 5	7	247
Sept. 3, 7	8	262
" 15, 9	10	363
Oct. 1, 11	12	414

On the 15th of October the crop produced by plot No. 13, on which the stalks had not been mowed, was taken up; as also that produced by the several plots from which the stalks had been removed at the different periods stated above. The following was the result.

No. 1 produced 360 pounds.
" 3 " 240 "
" 5 " 279½ "
" 7 " 317 "
" 9 " 354 "
" 11 " 408 "
" 13 " 519 "

Hence it appears that

No. 3, produced 120 pounds less than No. 1.
" 5, " 39½ " more " 3.
" 7, " 37½ " " " 5.
" 9, " 37 " " " 7.
" 11, " 54 " " " 9.
" 13, " 111 " " " 11.

On those plots on which the potatoes were taken up at the time when the stalks were mowed off on corresponding plots, the following difference of yield resulted:

No. 4, produced 57 pounds more than No. 2.
" 6, " 174 " " 4.
" 8, " 15 " " 6.
" 10, " 101 " " 8.
" 12, " 51 " " 10.
" 13, " 108 " " 12.

On comparing the foregoing differences of yield, it appears that whilst these were nearly the same in the case of No. 3, 5, 7 and 9, the difference of product on those plots on which the stalks had not been mowed off, but the crops of which had been taken up at different periods, viz: Nos. 4, 6, 8 and 10, was very great. On the other hand the difference of product on plots Nos. 9, 11, and 13, and on Nos. 10 and 12, coincide very nearly. The explanation of this may perhaps be found in the fact that considerable rain fell at the beginning of August, and also about the beginning of September, while during the rest of the period the weather was predominantly dry. This may also be reason why the yield of plots Nos. 6 and 10 was proportionally greater than that of No. 8.—The differences of yield in Nos. 5, 7 and 9, on the contrary, vary less, because the stalks were removed from these respectively on the 20th of August and 3d and 17th of September, and they consequently derived less benefit from the rain.

The difference of yields on plots Nos. 9, 11 and 13, correspond more nearly with those of plots Nos. 10 and 12, because by the middle of September the stalks on the plots which had not been mowed, had become withered and dry. On the comparatively larger product of those plots, the rains which fell about the close of September may have had some effect.

The larger product of No. 1, from which the stalks were mowed on the 33d of July, is explained by the fact that the second growth of stalks was very vigorous and abundant.

As the crop of plot No. 2, which was taken up on the 23d of July, weighed only 16 pounds, it may be assumed that the other plots would have yielded an equal crop, if it had been taken up at that time. The increase therefore, from July 23d to October 15, on those plots, from which the stalks were removed at different periods, is as follows:

On No. 1, mowed July 23, - - 354 pounds.
" 3, " Aug. 6, - - 224 "
" 5, " " 20, - - 263½ "
" 7, " Sept. 3, - - 301 "

" 9, " " 17, - - 338 pounds.
" 11, " Oct. 1, - - 392 "
" 13, not mowed, - - - 503 "

A similar series of experiments instituted in 1847, resulted as follows: The crop of plot No. 2, taken up in July 23, was 49 pounds; and the average from July 23, to October 15, on those plots from which the stalks were removed at different periods, were as follows:

On No. 1, mowed July 23, - - 305 pounds.
" 2, " Aug. 6, - - 254 "
" 5, " " 20, - - 290 "
" 7, " Sept. 3, - - 315 "
" 8, " " 17, - - 414 "
" 11, " Oct. 1, - - 459 "
" not mowed, - - - 517 "

The two experiments demonstrate the highly injurious effects on the crop of a removal of the stalks prior to ripening, even though it take place but two weeks before harvesting. They furthermore show the importance of the stalks to the growth of the crop, since, both in 1847 and in 1851, plot No. 1, yielded a much larger produce than the plots next in order, because the second growth had more time to become developed—more perfectly indeed in 1851, than in 1847, as the difference in yield shows.

In 1847, No. 2 yielded 49 pounds and in 1851 only 16 pounds, but as in the latter year the season was unfavorable the planting took two weeks later—a disadvantage which was not overcome during the rest of the season, for plot No. 13 yielded 563 pounds in 1847, and only 519 pounds in 1851. The same kind of potatoes was used in both experiments.

Queries.

MR. EDITOR:—In your last number I noticed in a note, appended to Judge Wat's article on "Smut in Wheat," a singular anti-smut influence exerted by a cedar tree. You have asked your correspondents for an explanation. Will they not be kind enough, to explain also the singular *smut* influence attributed to the Barberry bush? I would also be happy to learn upon what principle, the soaking of turnip seeds in fish oil will prevent the attacks of the turnip fly? Does the seed become so thoroughly saturated with it, and does it take up such a quantity, as to impregnate the leaves, and thus render them distasteful to the fly? It would give not only myself, but my neighbors, also, sincere pleasure to have these little mysteries elucidated; because they bear upon their face the impress of humbug, especially the latter. It requires stronger faith than I am possessed of, to believe that the saturation of so minute a seed as that of the turnip with any particular oil, would have the effect attributed to it by the person who recommends the plan. That oils are generally unpleasant to insect, is well known. Would it not then be as well to sprinkle a small quantity on the turnip patch before or after sowing.

Hanover, York Co., Pa.

QUERY.

Use of the Roller.

Mr. Editor:—There appears to be a less thorough appreciation of the value of the roller, for agricultural purposes, than almost any other implement in use. This is rather remarkable, from the fact that every well informed farmer knows that it is almost indispensable to a system of complete tillage. I am, however, pleased to observe that for some time past, our agricultural publications have been pressing its importance upon the attention of their readers. When the use of the roller is properly understood, it appears to me that no man who lays claim to the title of farmer, should or would be without one.

To many persons the idea of drawing a heavy roller over newly sown ground, carries with it the impression that its effects must prove detrimental.—This false impression has its origin in the fact that the great object to be accomplished by plowing, is the thorough loosening of the soil, and that after having broken up the ground, it is folly to turn round and press it down again. Let us, however, look for one moment, at the advantages which reflection ought and experience certainly will accord to the roller; and here permit me to state my mode of using it.

Immediately after plowing, and preparatory to seeding or planting, I invariably use the roller. This is done for the purpose of crushing these clods which in a stiff soil, and especially in a dry season, present such formidable obstacles to the harrow. The harrowing, which follows, is not only more effective, but decidedly easier of accomplishment, as the large clods are generally broken by it, and the fragments pressed into the mellow soil, where they are more readily and effectively operated upon by the teeth of the harrow. It may, however, be said that in lighter soils, this necessity for the use of the roller before harrowing would not exist. It would not be to so great an extent before the first harrowing, but it certainly would after the last.

Again, I use the roller after the seed has been harrowed in or drilled, (I seed with the drill,) for the purpose of pressing the earth more firmly around the seed. My own impression is, that if the roller were used to obliterate the small drills made by the teeth of the harrow before sowing, much greater regularity in the distribution of the seed would be obtained. (This of course presupposes broad-cast seeding.)

Let any farmer who doubts the advantages arising from the use of the roller, try a simple experiment, and if the result does not justify its further use, then let it be set aside as worthless and expensive. Set apart two strips of land of equal size. Roll the one before the first harrowing, and after the last.—Seed the second in the usual way, by merely harrowing. It is not material whether the seeding is done with a drill, or by broad-casting. And, my word for it, he will find that his seed in the rolled strip will

germinate more regularly, more rapidly,—the plants will be more thrifty—will withstand the effects of frosts better, and produce a better crop than the other.

On light soils it is of the greatest service in giving more tenacity than they naturally possess. Other advantages have been claimed for it: such as pressing into the soil the roots of plants which have been detached in part by the action of the frost. I have not the slightest doubt that such a method would be beneficial, although I have never tried it. Another advantage is the crushing of insects which injure the growing plant. To accomplish this, I understand that the farmers in several parts of Europe roll their fields after nightfall, as these pests then make their appearance on the surface of the ground. It might be tried with great advantage with us also.

Chester Co., Pa.

P. ROBERTS.

NATURAL HISTORY OF THE CHERRY.

The following interesting facts in the Natural History of the Cherry, we copy from an old English Horticultural publication.

It is thought the Cherry was procured and brought into Europe by Lucullus, a Roman General, who drove Mithridates, king of Pontus, from his dominions. The tree was found growing in Cerasus (Keresoun) a city of Pontus, which his army destroyed. This circumstance is supposed to be the origin of the name of the fruit, Cerasus. Both Mithridates and Lucullus appear to have been botanists, and although the former vanquished twenty-four nations, and learned to speak their different languages, with ease and fluency, yet he found time to write a treatise on botany in the Greek language. Lucullus is said to have planted the cherry in Italy 68 years before the Christian era; at the end of twenty-six years from that time their culture had become general on the Continent, and they had even extended as far as Britain; this makes its introduction 42 years before the Christian era, although it is believed by many to have only been planted here in the time of New's reign, which was A. D. 55. And about A. D. 70, Pliny wrote his work on Natural History, and mentions eight different kinds as being cultivated in Italy.

Kent has long been celebrated for the quantity of cherries it produces, and it appears probable that in this part of England the trees were first planted. It was supposed that during the Saxon period, the whole race of cherries brought to this country by the Romans were wholly lost, and, during the reign of Henry VIII. they were re-introduced from Flanders, but the writings of Gerarde seems to prove they were not wholly lost, for he says, "the Flanders cherrie differeth not from our English cherrie," &c.

The cherry seems to have been an highly esteemed fruit by the court, in the time of Charles the first, as

in the gardens of his Queen at Wimbleton, in Surry, there were upwards of 200 trees.

Cherries, when eaten to excess, are unwholesome, and *vice versa*. It has been asserted, (upon what authority we know not,) that if eaten fresh from the tree, while the morning dew is upon them, swallowing the stones also, they will purge so effectually as to cure those who have the gout in their feet. When dried they are much esteemed for winter puddings; and the wine made from this fruit much resembles *Red Constantia*, both in color and flavor. The small black ones, with good brandy, produce one of the most wholesome, as well as agreeable liquors. The gum which exudes from the tree is analogous to Gum Tragacanth. A variety of the small-fruited Bird-Cherry (*Cerasus avium*) is used in the Vosges and the Black Forest, for the preparation of the liquor known by the name of "Kirschenwasser," and the leaves are employed as a substitute for tea. The kernel of the *C. occidentalis*, is used for flavoring the liquor *Noyau*. Dr. Clarke says, the Swedes flavor their distilled spirits with the blossoms. The Finlanders use a strong decoction of the bark to cure syphilitic complaints. A decoction of the fruit is sometimes given in dysentery. The wood is next to oak for strength, and has some resemblance to mahogany; it is much in request for making chairs, musical instruments, &c. The timber comes to perfection in about forty years.

At Hamburg there is an annual feast celebrated, called "the feast of cherries," when children, carrying green boughs ornamented with cherries, parade the streets. It originated in the following circumstance; In 1432, the Hussites threatened the city with immediate destruction. The citizens, at the suggestion of a person named Wolf, agreed in this emergency to send all the children, from 7 to 14 years of age in mourning as supplicants to the enemy. The chief of the Hussites was so touched at this spectacle, that he received the young supplicants, regaled them with cherries and other fruits, and promised them to spare the city. The children returned crowned with leaves, holding cherries and crying "victory!"

Stones on Cultivated Land.

It is an error to suppose that stones should be entirely removed from land which is under cultivation. The stones which would be in the way of the scythe while mowing, of course should be removed, but all the smaller ones should remain; and if wholly or partially imbedded in the soil, they preserve moisture during a drought, and thus serve materially to increase the crop. The following article from the *Gentleman's Magazine*, published in 1773, is to the point:

"It has been long known to experienced farmers, that taking away very small stones and flints, is detrimental to plowing lands in general: but more particularly so to thin, high lands, and all lands of a binding nature. It was, however, never imagined that the damage could be so great as it is now found

to be, since unusual quantities of flints and other stones have been gathered for the use of turnpike and other roads. In the parish of Serenage, in Hertfordshire, there is a field known by the name of Chalkdell field, containing about two hundred acres; the land in this field was formerly equal, if not superior, to most lands in that country; but lying convenient for the surveyors of the roads, they have picked it so often, and stripped it of the flint and small stones to such a degree, that it is now inferior to lands that were formerly reckoned not much over half its value, acre for acre.

"Nor is it Chalkdell field alone that has materially suffered in that country by the above mentioned practice: several thousand acres bordering on the turnpike roads from Wellwyn and Baldock, have been so much impoverished, that the loss to inheritance forever must be computed at a great many thousand pounds. What puts it beyond a doubt that the prodigious impoverishment of the land is owing to no other cause but picking and carrying away the stones, is, that those lands have generally been most impoverished, which have been most often picked; nay, I know a field, part of which was picked, and the other part plowed up before they had time to pick it, where the part that was picked lost seven or eight parts in ten, of two succeeding crops; and though the whole field was manured and managed in all respects alike, yet the impoverishment was visible where the stones had been picked off, and extended not an inch farther; an incontestible proof of the benefit of the stones.

Deep Plowing.

The present season has proved to the satisfaction of every observer, that in deep plowing is to be found the principal security against drought. Fields tilled only to the depth of six or seven inches have suffered from severe dry weather, while side by side with them may be seen crops that have not seemed to feel the drought at all. In passing over several river farms a few days since, we found pieces of corn where the leaf was rolled, and the color was light and verging towards a yellow. On one of these we passed with a step from corn of this description to that at least a foot taller, of a deep lively green, and a broad uncurled leaf. Everything indicated an entirely different crop. We immediately turned to our companion for an explanation. The seeding was the same with the single exception of the use of a subsoil plow on this latter part. The gentleman had never used the subsoil plow before, and tried it upon this piece as an experiment. It was to him perfectly satisfactory, (it certainly was to the looker on) and he said he should use it on all his farm.

We have no doubt that subsoil or deep trench plowing would be equally beneficial in a season of much rain. Of course when the supply of water is from springs or the under current of higher land, it must be cut off by draining.

To prevent crops from suffering from the drought, plow deep and stir frequently the surface—*Granite Farmer*.

Ten Reasons for Under-Draining.

The following ten reasons are worthy of being committed to memory:

1. It prevents water which falls from resting on or near the surface, and renders the soil dry enough to be worked or plowed at all times.
2. By rendering the soil porous or spongy, it

THE FARM JOURNAL.

AGRICULTURAL FAIR.

takes in water without flooding in time of rain, and gives it off again gradually in the time of drouth.

3. By preventing adhesion and assisting in pulverization, it allows the roots to pass freely through all parts of the soil.

4. By facilitating the mixture of manure through the pulverized portions, it greatly increases its value and effect.

5. It allows water falling on the surface to pass downward, carrying with it fertilizing substances, (as carbonic acid and ammonia,) until they are arrested by the absorption of the soil.

6. It abstracts in a similar manner the heat contained in falling rains, thus warming the soil, the water discharged by drain-mouths being many degrees colder than by ordinary rains.

7. The increased porosity of the soil renders it a more perfect non-conductor of heat, and the roots of plants are less injured by freezing in winter.

8. The same cause admits the entrance of air, facilitating the decomposition of enriching portions of the soil.

9. By admitting early plowing, crops may be sown early, and increased amount reaped in consequence.

10. It economizes labor, by allowing the work to go on at all times, without interruption from surplus water in spring, or from a hard baked soil in summer.—*Cultivator*.

Bob's Notion of Book Farming.

Bob, the farmer's son, thus expresses himself of an improved system of farming, in the *Indiana Farmer*:

EDITORS FARMER:—I have only to say to you that I wish you would keep your agricultural paper to yourselves, and away from our house. Since the old man has been taking it, there is "no rest to the wicked," certain. He keeps us hauling *muck* (as he calls it,) manure, old ashes, and even makes us clean out the pig pen, and put the filth on our fields. Formerly there was some mercy shown the horses, for we plowed only three inches deep, but now, nothing less than ten inches will do, and the corn ground is to be plowed below that with a new plow he has just bought.

The next thing, I think, will be to take the bottom out of the well! We used to take the *Palladium*, and he would suck down the politics contained in it as gospel truths, and had plenty of time to spend half a day, and time to talk about who should be elected, and who should not. But he don't read that paper now, and he is as anxious to get the *Farmer*, as he was formerly to have the election day come round.—He is all the time talking about new "fertilizers," &c. He don't only talk either, but he makes us boys hoe it from morning till night. We have had to tear down all the fences, and re-set them, and he has got the old lady in the notion of white-washing the garden fence. What foolishness! and the plague of it is, we boys will have it to do—just wasting the time we might spend in fishing. So keep your paper to yourselves, and we will have some rest again.

IMPORTATION OF EGGS INTO ENGLAND.—From the returns prepared by the English Board of Trade, it is stated that during the five months ending the 5th of June, 52,338,676 eggs were imported and entered for home consumption. Of these two-thirds went to supply the London markets. The average monthly consumption of foreign eggs is 15,000,000. The importation of butter during the first five months of the present year, were 117,797 cwt. against 129,926 in the corresponding period of time last year.—

TO THE FARMERS OF PENNSYLVANIA AND THE NEIGHBORING STATES.—The first Exhibition of the Pennsylvania State Agricultural Society afforded satisfactory evidence that it is not difficult to develop the resources of our State, for so interesting an occasion. The exhibition itself, the pleasure we derived from it, and its profitable effects, in the face of the doubts and fears which always bear heavily upon new projects, were beyond our reasonable expectations. Now, that we know what can be done, we propose to hold our Second Annual Exhibition at Lancaster, on Wednesday, Thursday, and Friday, the 20th, 21st, and 22d of October, 1852, to which we invite all persons, everywhere, who feel an interest in the subject. We have made arrangements for the most ample accommodations and care of all the animals, products and machinery which shall be brought there; and we trust every Farmer, Horticulturist, Manufacturer, Mechanic, and Inventor, will partake with us, and consider himself as one engaged in the work of making this great Exhibition as interesting and profitable, as is our design it should be.

Our Society especially desires to recognize the influence and power that mothers and daughters may exert in promoting our objects, and we therefore cordially invite them to our meeting, and solicit the contributions of their taste and industry to give beauty and interest to our Exhibition.

FREDERICK WATTS, President.

NEW SUBSCRIPTIONS.—It affords us sincere pleasure to state that our fall campaign has opened most auspiciously. Our subscription list has been largely increased during the past month, for which we are indebted to a number of kind friends who have been instrumental in getting up clubs; and to the activity of our agents in Centre, Cumberland and Chester counties. Keep the ball rolling good friends.

Reports of County Exhibitions.

Will not the Secretaries of the different County Societies, that purpose holding exhibitions during the fall, favor us with brief accounts of them, or prevail upon some of their friends to do so. We shall be largely indebted to any person who may comply with our request.

HORTICULTURAL EXHIBITION AT PITTSBURG.—The annual exhibition of the Pittsburg Horticultural Society, was held in that city on the 23d of Sept., and is said to have been far superior to the horticultural display at Cleveland.

NEW YORK STATE FAIR.—This great affair came off on the 7th, 8th, and 9th of Sept. Although the

attendance was large, it was not equal to that of last year. The display of stock, &c., was also inferior. Why this should be we cannot understand. Hon. H. Seymour delivered the address.

Letter from Thomas Jefferson.

The following letter from the distinguished patriot and statesman Thomas Jefferson to Mr. Peyton of Washington City, was handed us a few days since for publication by Lewis Hamersly, Esq., of Lancaster City, who has the original in his possession. It is interesting from the fact that it shows that notwithstanding the pressing and important duties of the lofty positions held by Mr. Jefferson during the greater portion of his life, he still found time to devote to agricultural pursuits. From the readiness with which he disconses in regard to the vegetables referred to in the letter, it is apparent that the subject was a familiar one to him.

To Mr. Peyton, Mount Eagle.

Thos. Jefferson returns his thanks to Mr. Peyton for the cabbages he has been so kind as to send and which are very fine. He sends Mr. Peyton some seeds of the Sweet Kale. He sends him two other kinds of seeds because they are rare and valuable. The Sprout Kale is to be sown and transplanted as cabbages, but not to be taken up in winter. It begins in December to put out a multitude of sprouts of which it will furnish two or three successive crops thro' the winter. The main plant is not eatable, requires rich land.

The Dwarf tomato is earlier, later, and hardier than the common kind. It will spread itself into waste parts of your garden like a weed. He salutes Mr. Peyton with esteem and respect.

Monticello, Mar. 11-24.

LIME AS A FERTILIZER.

The use of Lime as a fertilizer of our soils, has of late been much discussed by some gentlemen, who rank among intelligent farmers, and for whose opinions I entertain great respect. The discussion referred to in the last number of your interesting and highly valuable journal, I have read with deep interest. I am an advocate for the judicious use of lime, and I have never yet seen it properly applied, where it did not pay 50 per cent. for the outlay in its purchase. There is no article, so cheap, that can be applied with so much permanent benefit, whether it acts as a fertilizer or only as a stimulant. If the farmer wishes to deepen his soil and to plow deep, nothing will enable him to do so with such complete success as the application of lime. I am yet, too, to find soil in such a high state of cultivation, as not to receive assistance by the application of a coat of good lime, unless previously dressed sufficiently with the article. Nothing can be furnished for the same money that will occasion so great an increase in the crop of grass, particularly clover. This increase will enlarge the manure heap, and this again applied to the soil will add to its enriching properties.

The use of most artificial manures, so extensively advertised at the present time, is attended no doubt with some good, but the benefit is not lasting. The application must be continued, or the effect is soon gone. Not so with lime. I can look upon farm-limed ten or fifteen years ago, at the rate of fifty to one hundred bushels per acre, that still show the effects of the application, and will continue to do so for years to come.

On poor and worn out land lime has accomplished wonders. On some of the shores washed by the waters of the Chesapeake Bay, there are large deposits

of oyster shells, in some places the ground is covered with them to the depth of many feet. The great benefit experienced by most farmers upon the Eastern Shore of Maryland by the use of stone lime, attracted attention to these oyster shells. Extensive kilns have been erected, and thousands of bushels of lime burned annually from these shells are applied with astonishing effect. It will not do at this late day to attempt to underrate the good effects of lime. There is a spirit of inquiry awake among farmers upon these subjects. They are making comparisons of the different fertilizers of their lands; and I am greatly mistaken if nine-tenths of all real practical cultivators of the soil are not advocates for the use of lime. What if a few farmers have used it without perceiving much or any benefit? This must not lead to its condemnation. Have no farmers used gypsum (Plaster of Paris) without perceiving any benefit from its application? A few years since I applied gypsum to a field of clover, and after I had sowed it upon about one-half of the field, I was compelled by a change of weather to stop, and the remainder of the field was let go without being finished. At mowing time, and at no period of time previous, was I able to perceive the least difference in the clover. It all presented the same appearance; and when mowed the part not dressed with plaster produced as much hay as the other half of the field. Still I am an advocate of the use of plaster, though I think its application does less good to lands thoroughly limed than to those where little or no lime has been used.

I was well acquainted with an intelligent gentleman in this county, who lost his life in a lime quarry, who was so thoroughly convinced, from practical observation, of the great advantage secured by the use of lime, that he offered to furnish the article, *free of charge*, provided he was allowed the increased products of the succeeding crops over and above that produced by the part of the ground where no lime had been applied.

When I took possession of my present farm, twelve years since, all the manure I could make annually would not well cover twenty acres of ground. I have this year manured for corn and potatoes *forty-three acres*. I am hauling out for wheat, and I find I shall still have sufficient left to dress twenty-five or thirty acres more. Now, where does this increase of manure come from? I have never used a handful of guano, bone-dust, or poudrette, and I bought little or no stable manure within the last few years. My starting point was with lime, and in the twelve years I have applied *thirty thousand bushels* on about 250 acres of cultivated land! I now need but little, and shall this year use only about two hundred bushels. I am reaping the benefit of previous applications, and my soil will continue to improve by proper care, without the use of much lime for twenty years to come. Grounds that used to be plowed four inches, are now turned over to the depth of ten inches, and this with good results.

To test the sincerity of my remarks in reference to the advantages to be derived from lime, I will make to any respectable farmer, the following proposition: Let him select a field of uniform quantity of soil.—On one half of this let him apply, on the sod, two years previous to plowing for corn, sixty bushels of good lime per acre, from the kiln, in a fine pulverized state. Let the whole field ever after be treated exactly alike; and at the end of six years, if the part limed does not yield of all crops more than the other, send the bill for the lime to me and I will pay it.

WILLIAM STAVELY.

Bucks Co., Aug. 20.

[Ger. Telegraph.

National Pomological Society.

We have not room this month for more than a mere list of the officers of this association. The attendance was large and the proceedings of a highly interesting character. A Constitution and By-Laws were adopted. The following propositions were then taken up in order and discussed.

The Business Committee proposed for the action of the Pomological Congress the following subjects:

1. To revise the list recommended by the former session of the Congress for general cultivation.
2. To revise the list of rejected varieties.
3. To recommend such varieties as are worthy of general cultivation, or for particular localities.
4. To add to the rejected list such as are unworthy of cultivation.
5. To appoint a temporary committee of seven on synonyms, who shall sit during the Convention.

The following are the new officers chosen:

PRESIDENT.

Col. M. P. WILDER, of Boston.

VICE PRESIDENTS.

Caleb Cope, Pennsylvania.

A. H. Ernst, Ohio.

S. L. Goodale, Maine.

Col. B. Hodge, New York.

Lawrence Young, Kentucky.

CORRESPONDING SECRETARY.

Thomas P. James, Philadelphia.

RECORDING SECRETARIES.

F. R. Elliot, Cleveland, Ohio.

James H. Watts, Rochester, N. Y.

OHIO STATE FAIR—Was held at Cleveland on the 15th, 16th, and 17th insts., and is represented as having been more largely attended than any similar exhibition ever held in the United States. The receipts were \$14,500 and nearly \$6000 were distributed as premiums. Well done, neighbor!

ACTION AND RE-ACTION IN FARMING.—Fences operate in two ways—if good they are a defence, if poor an offence.

Many a farmer, by too sparingly seeding his new meadows, has had to cede his whole farm.

Every farmer should see daily every animal he has, and inspect its condition. Weekly visits, as with some, soon result in weakly animals.

The man who provides well sheltered cotes for his sheep in winter, will soon find plenty of coats for his own back.

A good housewife should not be one of "one idea," but should be equally familiar with the flour garden and flour barrel; and though her lesson should be to lessen expense, yet the scent of a fine rose should not be less valued than the cent in the till. If her husband is a skillful sower of grain, she is a equally skilful as a sewer of garments; he keeps his hoes bright by use; she keeps the hose of the family in order.—*Albany Cultivator*.

Moss and Rough Bark on Trees.

All are perhaps ready to agree with me, that moss and rough bark are heavy drawbacks on the apple trees. We will first consider the cause, second the effect, and then the remedy. The centre of vitality in the stem or trunk of a tree, is in the line of demarcation between the bark and the wood; and it recedes from that point both to the centre of the wood and to the surface of the bark, until in old trees can be found dead wood in the centre, and dead bark on the surface. By a law of nature, when life ceases to hold organized matter, dissolution and decay follow. It then becomes food for other organizations, and thus never ending changes are going on. Moss is a kind of parasite that grows from the dead bark, and is supported by the decayed matter of the dead bark, and also by drafts of sap from the live bark. Thus the moss steals, as it were, the *life-blood* of the tree, and it loses its healthy appearance, and its fruit is lessened both in quality and quantity. Moss and rough bark are all places of deposit for insects, in which their eggs are deposited. They also hold water days after rainy weather, and by its gradual evaporation, keep the temperature of the tree too low for a cold climate.

As a remedy, use a scraper first, and then on young trees whose heads are not sufficiently developed to shade the stem or trunk, use whitewash, which will reflect the heat, and relieve it from the extreme heat of a summer sun; but on large trees, soap suds, ashes and water, or lye, is preferable. In washing young trees, lye should not be too strong; otherwise, unless it is washed off or put on immediately before a brisk shower, there is no danger of injuring them.

In order that these hints may be put in practice, and that good may be the sequel, I will cite the reader to his own observation. Show me a mossy, rough barked orchard, that yields a fair return of good fruit, and I will show you a *phenomenon*.—*Cor. Gen. Farmer*.

In speaking of the good and bad qualities of the Devon Cattle, Youatt remarks:—

For the dairy, the Devons must be acknowledged to be inferior to several other breeds. The milk is good and yields more than an average proportion of cream and butter; but generally it is deficient in quantity. There are those, however, and no mean judges, who deny this, and select the Devons even for the dairy.

Such is not, however, the common opinion. They are kept principally for their other good qualities, in order to preserve the breed; and because, as nurses, they are indeed excellent, and the calves thrive from their small quantity of milk more rapidly than could possibly be expected.

This aboriginal breed of British cattle is a very valuable one, and seems to have arrived at the highest point of perfection. It is heavier than it was thirty years ago, yet fully as active. Its aptitude to fatten is increased, and its property as a milker might be improved, without detriment to its grazing qualities.

Those points in which the Devons were deficient thirty years ago, are now fully supplied, and all that is now wanting, is a judicious selection of the most perfect of the present breed, in order to preserve it in its state of greatest purity. Many of the breeders are as careless as they ever were; but the spirit of emulation is excited in others.

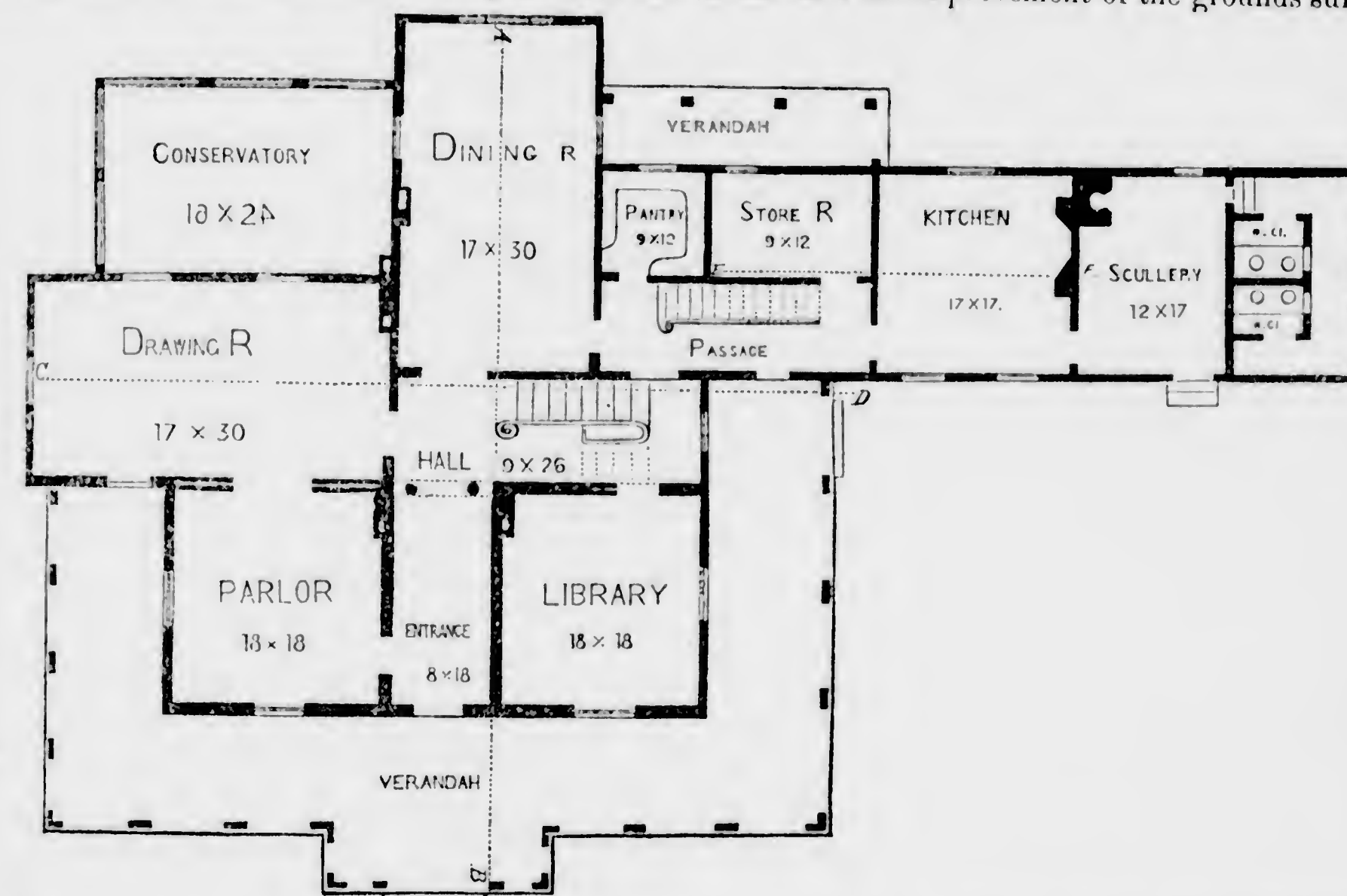
THE FARM.

[SEE FRONTISPIECE.]

We have frequently, within the past twelvemonth taken occasion to call the attention of those of our readers interested in architectural pursuits to the work now in course of publication by E. S. Jones & Co., of Philadelphia, edited by Samuel Sloan, Esq., Architect. The want of a more general diffusion of a correct taste in Architecture in our country has ever been severely felt. The unwearied efforts of the late A. J. Downing, to inspire a love for the beautiful, in the hearts of our people, have not, it is true, been without their effect. Here and there we behold evidences of a desire, at least, to improve upon the grotesque styles of building which prevail so universally throughout the United States; but this desire is far from being general; and the taste manifested in most of these attempts at improvement are

anything but exquisite. The want therefore of Architectural works, based upon correct principles, has long been a source of complaint; and as supplying this want in part at least, we again commend to the attention of our readers, the *Model Architect*, from which superb work the frontispiece contained in our present number, as well as the following description in detail is taken.

It is gratifying to observe, that there is a growing disposition on the part of merchants and professional men, who have amassed wealth in cities, to retire from the active pursuits which have engaged their whole lives, and enjoy in the country the comforts and relaxation they have so faithfully earned. To such men the value of a reliable work on architecture is indispensable, as the removal to the country is generally preceded by the erection of a country house and the improvement of the grounds surround-



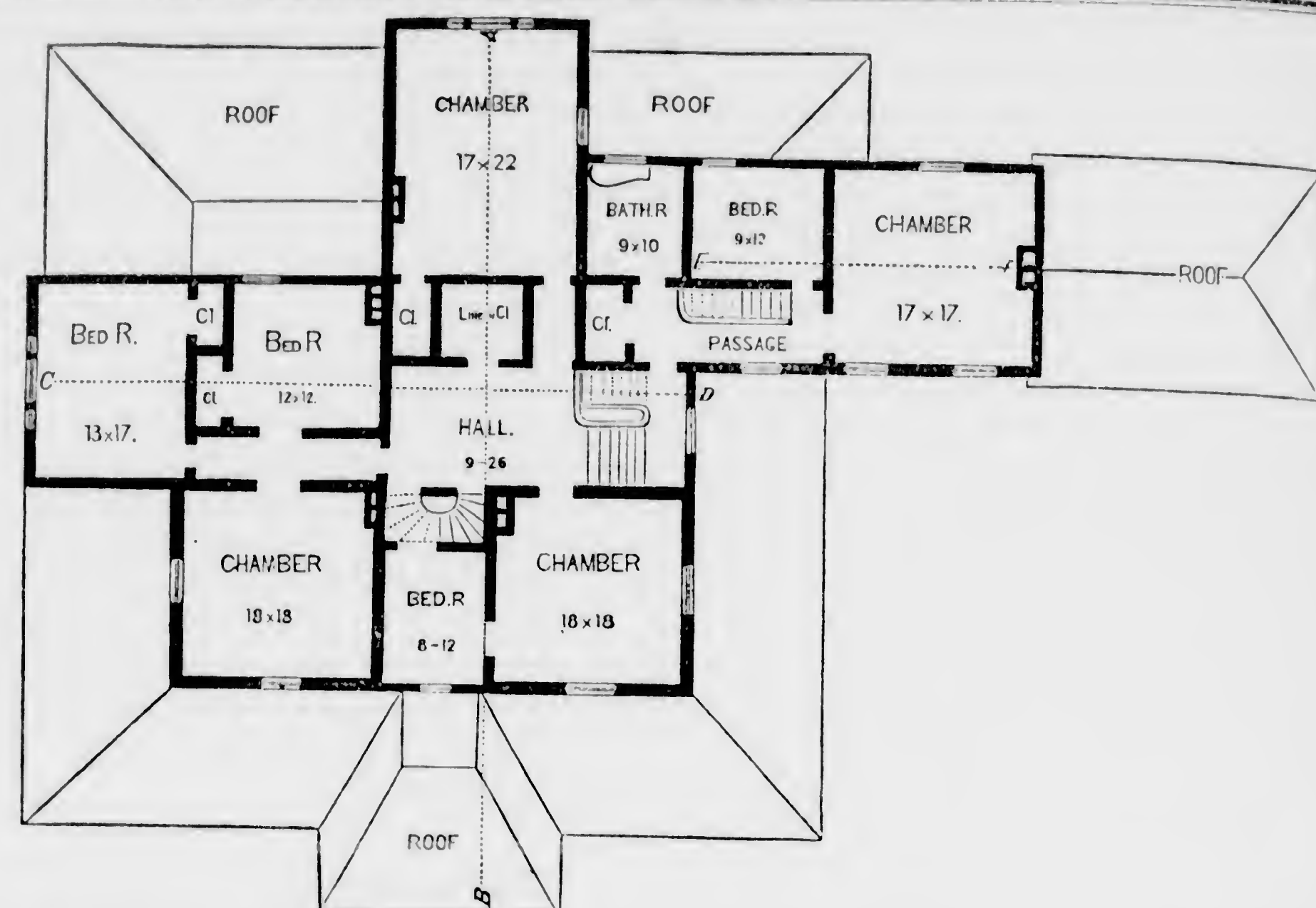
ing it. To the architect himself, the work is if possible, still more valuable, from the fact that his reputation and success depend upon the taste displayed in designing, and the skill in erecting buildings.—"The Farm" may be regarded as a fair sample of the character of the illustrations presented in the *Model Architect*, and to it and the work itself as far as completed we refer the reader.

In the second volume a new feature is introduced. All the principal designs are exhibited in landscapes taken from nature. There are surrounding us in all directions a thousand of beautiful spots, suited in every respect to become delightful places of residence, which are altogether neglected, and by many unnoticed. It is believed that many valuable thoughts will be suggested by locating our designs in the midst of scenery suited to their character, and being engraved in a superior style they will furnish also pictures of various interesting localities.

The view presented on Plate I. is taken from the

neighborhood of Gray's Ferry near Philadelphia. This is a spot interesting to every student of American history, and well known also for abounding in beautiful quiet views. In the engraving the building is placed at the intersection of two roads, now occupied by a stone mansion. In front is an orchard, and in the rear is spread out a large tract of excellent farm land. The creek winds its way to the Schuylkill, seen in the distance. The road which crosses the bridge is private, and leads to the farm: the other in front of the house is a highway. There is nothing very striking in the view, but for a quiet pleasant farm scene we think it has no superior, though it may have many equals.

Plate I. & II. presents the floor plans of the design. The building is frame work throughout, and we subjoin a comprehensive description and a bill of quantities which render many remarks here unnecessary. The post of the front verandah may be either of iron or wood, and the apartments on the extreme of the wing may be placed elsewhere. It will be seen at a glance that the building is large and roomy, furnish-



ing sufficient space for the dwelling of ten persons, which is a large number to constitute one family. From the hall of the second floor the winding steps ascend to the observatory. The hall below is separated from the entrance by an arched door-way.

The building is to have a cellar beneath its entire extent, at least six feet six inches deep in the clear of the joists of the first floor, with all necessary trenches for the foundations at least six inches below the cellar floor. All the work must be graded around the building as may be directed.

The walls throughout the cellar must be composed of good quarry building stone, laid in the best lime mortar. They are to be sixteen inches thick, and have all facings smoothly dashed and whitewashed. The flues for warm air and gas are to be built of bricks, and so arranged that either stoves or a furnace may be used. They are to be well parge-tted and topped out with press bricks, at least four feet above the roof from which they issue. The flues of the main building pass through the observatory. There is a well beneath the extreme wing of the building as deep as the water gravel, walled in and provided with a ventilating flue.

The superstructure is to be constructed entirely of framework. The sills are to be six by six inches, the corner posts, four by eight inches, the girts four by eight inches, the plates four by six inches, the door and window studs four by six inches, the braces four by four inches, and the intermediate studding three by four inches. The joists of the first floor are to be three by twelve inches, and all others are to be three by ten inches. They are to be placed sixteen inches between centres, to have three-quarters of an inch crown, and each tier must have a course of lattice bridging through the centre. The ceiling joists are to be three by five inches, and also placed sixteen inches between the centres. The rafters are to be three by seven inches at the foot, cut in the usual form, placed two feet between centres, and strongly spiked at the plate and ridge-pole. The sills are to be of good oak timber, and the frames of the verandahs are to be of oak inferior in quality. All

other framing timbers are to be of white pine, except the studs, which are to be hemlock.

The exterior is to be enclosed with half inch siding, well seasoned, planed, jointed, not over three inches wide, and secured, overlapping, by six penny nails. The cornice and observatory are to be constructed according to the drawings. The floors throughout are to be laid with one inch Carolina heart pine of a good quality, well nailed to the joists, and afterwards smoothed off. The roof is to be close sheathed for metal covering.

The windows are all to have a plank face with a large sized moulding. The sash must be one inch and a half thick, and double hung with axle pullies and patent cord. The first story windows are all to have three paneled shutters one inch and a half thick, with fillets and mouldings on the face and head, and butt on the back. The second story windows are to have Venetian pivot blinds, one inch and a half thick.

The doors throughout the principal rooms are all to be one inch and three quarters thick, in six panels, with fillets and large moulding on both sides. They are to be hung with four by four inch butts, and secured by four and a half inch upright mortice lock. The closet doors are to be one and a quarter inches thick, with moulding on the outside. The principal doors in the wing are to be one inch and a half thick, in six panels. The entrance doors are to be made in like manner to those first described. Those on the front are to have an eight inch upright rebate lock, and iron plate flush bolts of a suitable length. All other outer doors are to be secured with a knob latch and two bolts each.

The dressings of the principal rooms on the first floor are to be eight inches, and moulded. The wash-board must be ten inches wide, including a three inch base. The moulding on the top is two inches and a half high. The dressings in the second story main building are to be five inches wide. The wash-boards are to be nine inches wide, with a moulding on the top.

The stairs are to have a continued rail, and be put

up in the best manner, with one and a quarter inch step boards of the best quality. The newel is to be ten inches at the base, and the balusters three inches, neatly turned. The rail and the newel are to be of black walnut. The private stairs are to be constructed in the usual manner.

All the walls of the building are to be lathed, plastered and hard finished. The principal rooms are to have cornices in the angles of the ceilings. The roofs are all to be overlaid with the best one cross leaded roofing tin, painted on both sides, the upper receiving two coats. All the exterior and interior must have three coats of pure white lead paint. The newel rail and balusters must have three coats of varnish.

EULOGIUM ON THE LATE A. J. DOWNING

Pronounced before the Pomological Congress at Philadelphia, Sept., 13, 1852.

BY HON. MARSHALL P. WILDER.

The annual return of the 28th of July will moisten the eyes and agonize the hearts of many American citizens.

On the morning of that disastrous day two steamers, the Armenia and Henry Clay, with numerous passengers on board, start from the capitol for the chief commercial port of the Empire State. Like "stately sailing swans" they glide swiftly over the smooth surface of the Hudson. The fire within them waxes warm; their awful energies are roused; they run abreast—anon, the "bird of the west" darts ahead and distances her orient rival. She calls at her landings, swells the number of her passengers, and with fearful velocity bears them onward.

They admire the varied landscapes, the cottages, villas, towns, cities, bold cliffs and lofty mountains, which have given the scenery about this majestic river a world-wide renown.

They near a city which rises in beauty and grace, from its western bank back to the brow of the distant hill. There, is a

"Cottage, half embowered
With modest jessamine, and there a spot
Of garden ground, where, ranged in neat array,
Grow countless sweets."

Its architecture is in the most approved Elizabethan style. Its grounds are tastefully laid out and adorned, and he who named it "Highland Gardens" accurately translated the natural language of the place. It overlooks the city and the river, and commands a view of one of the most extensive and beautiful landscapes in the world. The very site seems designed by nature for the birth-place of genius, and for the abode of comfort, taste and learning.

Its proprietor, with his relatives and friends, six in all, take passage in the ill-fated boat. She bears them on toward their port of destination, when suddenly the alarm of fire rings like a death knell through that floating sepulchre. The passengers are ordered aft, and she is headed for the eastern shore. In a moment all is consternation and horror, which no language can describe, no painter's pencil sketch. Her whole centre is on fire. She strikes the bank two miles below the town of Yonkers. The wind envelops the multitude on her stern in smoke and flame. With a fearful odds in the chances of escape, the Great Destroyer offers them their choice between a death by flame, or a death by flood. Alas! on some he inflicts both—they are first burned and then drowned!

They are driven before the devouring element, and

entrust themselves to the mercy of the waves. Amidst the crowd at the stern, stands a man of tall and slender habit, and of thoughtful expression, whose penetrating eye surveys this perilous scene, and seeks the most favorable chance of escape. His accustomed self-possession fails him not in this awful extremity. He imparts wise counsels for personal preservation to his friends and those about him; then climbs to the upper deck for articles from the furniture of the boat, on which they may float to the shore. He returns, but his beloved wife and part of his company have already been driven overboard. He commits the rest, and last of all himself, also, to the fatal flood.

"Forlorn of heart, and by severe decree
Compelled reluctant to the faithless sea."

They sink; they rise. With the grasp of death they cling to him and again submerge him and themselves in the waves. He brings them once more to the surface and beats for the shore. Alas! it is vain; his efforts to save others peril his own life. Entangled, exhausted, disabled, he sinks to a watery grave!

But the partner of his life, her sister and brother, who were mercifully rescued from the jaws of death, are still unapprized of his melancholy fate, and search for him in vain among the agonized survivors. But the cry, she sinks! she sinks!! fills their hearts with direful apprehensions. Still they cling to the delusive hope that he may be among those rescued by the rival Armenia, and borne to the city of New York.

The object of his conjugal love returns to her desolate home. The tidings of this awful disaster fly upon the wings of the wind; the mystic wires tremble at the shock; the press utters its loud lament; the note of woe rings through our streets, fills our dwellings, and convulses our hearts with grief. The nation mourns—minute guns are fired upon the spot, to arouse the inhabitants of the surrounding country and to start the dead from their lowly rest. Multitudes rush from every quarter to the mournful scene: they crowd around each body as it is raised and brought to the shore, to indently therein a relation or friend. Among them his brother and partner in business arrive. At length, another body is raised. Its countenance is recognized; and the doleful announcement is made that ANDREW JACKSON DOWNING is no more.

"Lovely in death the beauteous ruin lay!"

His precious remains are borne back to their native city, and to his house of mourning. There, they meet his widowed wife, whose ear, during the fourteen years of their wedded life, had been so quick to catch the sound of his returning footsteps, and who had been the first to greet and welcome him. Alas! she is suddenly bereft, by one fatal blow, of friend, mother and husband! The funeral rites are performed; his body is committed to the tomb, "earth to earth," "ashes to ashes," "dust to dust!"

Thus terminated the earthly career of our lamented brother and associate. But his name shall be perpetuated by fragrant flowers and delicious fruits; by gushing fountains and murmuring streams; by grateful shade and balmy breeze, and by many a rural scene, and many a tasteful home. He shall be remembered.

"Where cottages, and fanes, and villas rise;
Where cultur'd fields and gardens smile around."

But to be specific, the results of his toil appear in the forests which he has preserved from the merciless axe—in the trees which he has described and made to contribute more abundantly to the taste and com-

fort of their proprietors—in the avenues which he has adorned—in the lawns and pleasure grounds which he has laid out and appropriately embellished—and in numberless buildings which stand as monuments to his architectural skill.

The fruits of his labors are also gathered in thousands of gardens and conservatories. The numerous cottages and villas which have lately sprung up in the towns and villages about our commercial cities, and throughout our happy land evince his genius; and it is due to his worth to say, that few have left a mark so deep and broad on the generation in which they lived.

In responding to the calls which have been made upon me to pronounce the eulogy of our deceased friend, I shall attempt nothing more, and can certainly do nothing better, than to articulate the language of his useful life, and to give free utterance to your own convictions of his worth.

Mr. Downing was born in Newburgh, N. Y., on the thirty-first day of October, A. D. 1815. In his boyhood he manifested a fondness for botany, mineralogy, and other natural sciences, which at the age of sixteen, when he left school, he was able to prosecute without the aid of an instructor. At that period, his father having died when he was but seven years of age, his mother desired him to become a clerk in a dry good store; but he, following the native tendencies of his mind, preferred to remain with his elder brother in the nursery and garden, whose accuracy and practical skill in horticulture gave special prominence to the same traits in the deceased, and with whom he might study the theory, and perfect himself in the practice of his favorite arts.

In the formation of his character, we also recognize with gratitude the agency of Baron de Lidreer, the Austrian Consul, whose summer residence was in his native place, a gentleman of large endowments and attainments, of eminent purity of mind, and refinement of manners, a mineralogist, and botanist, who discovered in young Downing a mind of kindred taste, who made him the frequent inmate of his family, as well as his own companion in numerous excursions for the scientific exploration of the surrounding country.

But his sensibility to artistic beauty was cultivated and developed by the lamented Raphael Hoyle, an English artist, residing in Newburg, and who, like himself, went down to an early grave, leaving behind him specimens in landscape paintings, true to nature, and of remarkable delicacy of coloring. His manners were much improved and adorned by his familiar intercourse with his neighbor, Mr. Edward Armstrong, a gentleman of refinement and wealth, at whose fine country seat on the Hudson he was introduced to the Hon. Charles Augustus Murray, an Englishman, whose book of travels in America has been admired on both sides of the Atlantic. There he also made the acquaintance of many other distinguished men, who subsequently became his correspondents and personal friends.

These associations had, no doubt, much influence in strengthening his refined and generous nature.—He devoted all the time he could reclaim from physical labor to reading and study. In the bowers of his garden he held frequent converse with the muses, who inspired him with the poetic fire which illumines his pages, and imparts peculiar vivacity and energy to his style.

At the age of 22, on the seventh of June, 1838, he married Miss Caroline Elizabeth, daughter of J. P. D. Wint, Esq., of Fishkill Landing, a lady of congenial spirit, of refinement and intelligence, to whom

the world is much indebted for his usefulness. In grateful return for her valuable services, she now enjoys the commiseration and condolence of his friends in America and trans-atlantic countries. But with all these aids, still Mr. Downing was, in the strictest sense, *self-taught*; a fact which deserves to be recorded, not only to his praise, but as an encouragement to thousands of aspiring youth. If he was never a pupil in the studio of an artist; if he studied natural science in the laboratory of nature more than in the schools of scientific chemists; if he enjoyed not the advantages of a liberal and professional education, valuable and desirable as these means of improvement certainly are; yet he was at all times and every where a learner; and the lessons of wisdom which he received, he promptly reduced to practice; a circumstance which made him eminently practical and national, *a man of his own age and country*.

I will illustrate his habits of observation and study. In a walk he plucks from an overhanging bough a single leaf, examines its color, form and structure; inspects it with his microscope, and having recorded his observations, presents it to his friend, and invites him to study it, as suggestive of some of the first principles of Rural Architecture and Economy.

Does he visit a beautiful country seat, he sketches a view of it, and of the grounds about it; notes whatever is true to nature, accurate in taste, or excellent in design; and from his copy, a plate is engraved, and in the next number of his Horticulturist the whole scene, with his valuable comments, is given to the lovers of the landscape and the garden.

He returns from the forest. A short extract from his journal will explain the object of his tour, and afford a fair specimen of the beauty and force of his style:

"Nature plants some trees, like the fir and the pine, in the fissures of the rock, and on the edge of the precipice; she twists their boughs, and gnarls their stems, by storms and tempests—thereby adding to their *picturesque* power in sublime and grand scenery. But she more often develops the *beautiful* in a tree of any kind, in a genial soil and climate, where it stands quite alone, stretching its boughs upward freely to the sky, and outward to the breeze, and even downward to the earth, almost touching her in her graceful sweep, till only a glimpse of the fine trunk is to be seen at its spreading base, and the whole top is one great globe of floating and waving luxuriance, giving us as perfect an idea of symmetry and proportion as can be found short of the Grecian Apollo." "One would no more wish to touch it with the pruning knife, the axe, or the saw, (unless to remove a decayed branch) than to give a nicer curve to the rainbow, or to add freshness to the dew-drop." This description, for beauty, power of diction, and for truthfulness to nature, not only harmonizes with the pictures, but even rivals the finest touches of the pencils of Claude, Poussin, Salvator Rosa, or any other great master of landscape.

He makes the tour of New England, and stops at New Haven, that city of elms. He walks out from the Tontine upon the green, admires those grateful shades, their majestic form their gracefully waving boughs, and they revive in his mind the history of the elm, its varied use for fuel, timber and shade.—He arrives at Hartford. The first object of his attention is the "charter oak." He hastens to visit it, stands before it, and filled with veneration, exclaims, with the bard of Mantua, translated by Dryden,

"Jove's own tree,
That holds the world in sovereignty!"

He sketches it, gives you a copy of it in his "Landscape Gardening," together with his classical and scientific account of this king of the American forest. He journeys up the beautiful valley of the Connecticut to Stockbridge, Massachusetts, whose streets are lined with the sugar maple, "clean, cool, smooth and umbrageous." He there increases his love and admiration of the American maple, the beauty of whose vernal is surpassed only by the unrivalled hues of its autumnal foliage, dyed with the tints of departing day.

By scenes like these, and by scientific reflection thereon, he prepares himself to give those last and well directed blows at that "heavenly" tree, the Ailanthus, and also at the Abele Poplar—both of which he kills off in a most *celestial* manner, to make room for the more deserving and truly American Maples, Oaks, Elms and Ashes, for the Magnolia, the Tulip and others. Of the latter, how beautifully he speaks in the last leader from his pen, in a manner so easy and flowing, and so characteristic of the man. "We mean the Tulip-tree, or the Liriodendron. What can be more beautiful than its trunk, finely proportioned, and smooth as a Grecian column? What more artistic than its leaf, cut like an arabesque in a Moorish palace? What more clean and lustrous than its turfs of foliage, dark green and rich as deepest emerald? What more lily-like and specious than its blossoms, golden and brown shaded? and what fairer and more queenly than its whole figure, stately and regal as that of Zenobia?"

In the progress of his journey, he reaches the commercial metropolis of New England. It is the annual Exhibition of the Massachusetts Horticultural Society in the city. He enters its Hall, is greeted with a cordial welcome, and invited to examine its collection, particularly the extensive show of pears. In a subsequent discussion with its fruit committee, he proposes to them a question in his direct, practical and impressive manner—"Will each of you please to give me the names of the best three varieties of the pear, together with their reasons for that preference?" He obtains their opinions, and publishing the same, puts the public at once in possession of their long and dear bought experience.

The same practical and studious habit is remarkably exemplified in his foreign travels. Unlike other tourists, who visit the tower of London or Westminster Abbey, he hastens from the parks of that city to Chatsworth, then to Woburn Abbey, Warwick Castle, and other places where agriculture, horticulture, architecture, and all the fine arts have for ages vied with each other in whatsoever is ornamental in embellishment and princely in wealth, and where are scenes of natural and artistic beauty and grandeur which attract the chief masters of the world. He is received and entertained with kindness and partiality by the Earl of Hardwicke, the Dukes of Devonshire and Bedford, and of others with whom he formed many warm friendships in the mother country. From these places, where wealth, art, nature and genius have congregated whatever is most beautiful to the eye, most approved in taste, or most impressive to sensibility, he prosecutes his journey; everywhere observing, noting and studying the objects and scenes about him. To him not a tree, a plant, a leaf, a blossom, but contained a folio volume.

We have necessarily amplified this part of our subject, in order to give a correct view of the manner and extent of his education, of the peculiarities of his style, and of the formation of his character, and to furnish the materials for a just appreciation of his

worth, and for a philosophical judgment of himself and of his works.

Mr. Downing was just what we have represented, a *self-taught* man. His name will appear in all coming time, emblazoned upon the roll of fame, among such worthies of that class as Roger Sherman, Benjamin Franklin, David Rittenhouse, Benjamin West, and Nathaniel Bowditch. He was not, perhaps, so profoundly scientific, yet he was well grounded in vegetable physiology, and in the first principles of the arts to which his life was devoted. Being the sovereign of his own powers and acquisitions, he could instantly bring them to bear on the subject of his investigation or discourse.

In his character we find that assemblage of virtues commonly called *amiableness*. On this depended the suavity of his manners, the sincerity of his friendship, and the freedom of his hospitality. His guests always received a hearty welcome, and found at his residence a quiet home. Here Miss Bremer, whose fame in letters is like that of the Swedish nightingale in song, wrote the introduction to one of her works; and in speaking of his kindness and hospitality, she says: "I never shall forget, nor ever be able fully to acknowledge them, feeling as I here do, at this moment, all the blessings of a *perfect home*."

He also possessed, what is rarely found in combination with these qualities, *keen perception, great energy, decision and boldness*. Blessed with an almost intuitive perception of character, he read men at a glance. When he was in London, he desired an assistant, who would return with him to America and aid him in the architectural department of his business. He visits the architectural exhibition in that city, and seeks an introduction to the Secretary of that association, to whom he reveals his object, and by whom he is introduced to Mr. Calvert Vaux, as a gentleman well qualified for the place. They exchange references: and so readily did he inspire confidence in this stranger, and also perceive that he might safely repose the same in him, that on their interview the next morning he concludes a contract, agrees upon the precise time when they will start from Liverpool for America, hastens to Paris to complete his unfinished business, fulfils his engagement, and in two weeks they are unitedly prosecuting their labors at Newburg. Such was his activity, promptness and despatch.

The increasing extent of his business would have employed several common men; his correspondence alone would have occupied a private secretary; yet the number and urgency of his duties never depressed him, never confused him, never made him in a hurry, because he was always the *master*, never the *slave* of his business.

Having once thoroughly investigated a subject, he rested with confidence in his conclusions, and published the same with a boldness which arrested attention and commanded respect. Witness his just condemnation of "*white houses*" amidst rural beauty, a color which no master of landscape would dare to transfer to his canvass, yet which is as common in the country as it is opposed to economy and good taste. Witness also his condemnation of the impure air of stove-heated and unventilated dwellings, air which, with equal truth and propriety, he denominates "the favorite poison of America." This article, copied by numerous journals, read by thousands, and commending itself to their common sense, is fast producing a reform, conducive alike to health, comfort and long life. But his *kindness and magnanimity*, his freedom from envy and jealousy, enabled him to admire and commend whatever was excellent and

praiseworthy, as freely and decidedly as he condemned their opposites. These characteristics are exemplified in his monthly reviews of the press, and in the notice of the works of other writers, which appear in his volumes.

In a word, Mr. Downing was in manners modest, polite and gentlemanly,—in perception of fitness and propriety intuitive,—in taste accurate and refined—in tact and practical skill *remarkable*—in love of country strictly national, *American*—in sentiment pure—in life incorrupt—in most respects a *model man*—in all *nature's own child*. It has justly said of him, "at whatever point of view we regard him, we are compelled to admit the symmetry of his character, the vigor of his mind, the versatility of his talents, and that healthful flow of enthusiastic feeling which marks his writings. There are those who can work out beautiful thoughts in marble, who can clothe them in the touching language of poetry, or bid them flow in the rounded periods and convincing strains of oratory; but few minds seem more fully possessed of the power to add art to the beauty of nature, and make the desert blossom like the rose."

His writings are a faithful transcript of his own character. If his diction sometimes contains unusual and even strange words and phrases, possibly ungrateful to some classic ears, the worst which enlightened criticism can say of them is, that they subordinate elegance to originality and force. But his language is generally pure, chaste and refined, not unfrequently beautiful and highly ornate. His style is peculiarly his own, not rigidly methodic, sometimes abrupt, but always versatile and flowing. It is remarkable for that of which he was passionately fond in nature, and to which, with some latitude of expression, we will appropriate the word "*picturesque*."

A single quotation will truly illustrate our meaning, and also these qualities of his style. We select the words with which he introduced the Horticulturist to his readers, with the first breath of summer: "Bright and beautiful June! embroidered with clusters of odoriferous roses, and laden with ruddy cherries and strawberries; rich with the freshness of spring, and the luxuriance of summer—leafy June! If any one's heart does not swell with the unwritten thoughts that belong to this season, then is he only fit for 'treason, stratagem and spoils.' He does not practically believe that God made the country. FLORA and POMONA, from amid the blossoming gardens and orchards of June, smile graciously as we write these few introductory words to their circle of devotees. * * * * * Angry volumes of politics have we written none, but only peaceful books, humbly aiming to weave something more into the fair garland of the beautiful and useful, that encircles this excellent old earth." Such passages enliven and adorn his works.

Of these we can give but a brief account.

The first is his "LANDSCAPE GARDENING," which introduced him to the literary and scientific world, and gave him a rank among the distinguished writers of his age. For years previous to its publication, he seemed retired from the world, abstracted and absorbed, but in reality, he was occupied in intense study of his subject. When he mastered it, and adapted its principles to American climate, scenery and people, he published it on both sides of the Atlantic.

Think of this young man, at twenty-six years of age, without the advantage of a liberal education—with no precedents to guide him, with only a few practical hints from such men as Parmentier, seizing

upon the first principles of this science in the works of Repton, Price, Loudon, and others, with a comprehensive mind, with a power of analysis, an originality and fixedness of purpose, that would have done honor to the first scholars in other departments, popularizing and appropriating them to his own period and country, and actually producing a book which becomes at once a standard universally acknowledged by his own countrymen, and praised by Loudon, the editor of "Repton's Landscape Gardening," who pronounced it "a masterly work," and after quoting ten pages to give his English readers an idea of its excellencies, remarks, "We have quoted largely from this work because, in so doing, we think we shall give a just idea of the great merit of the author." This work the celebrated Dr. Lindley critically reviews, in sundry articles in his Gardener's Chronicle; and while he dissents from it on some minor points, yet in respect to its cardinal excellencies, he thus remarks: "On the whole, we know of no work in which the fundamental principles of this profession are so well or concisely expressed." And in regard to Mr. Downing's explanation of this science, and his general definition of it, he adds, what is equally complimentary to our author and to American genius, "no English Landscape Gardener has written so clearly, or with so much real intensity."

Closely allied to this science is the subject of Architecture, to which our author next turns his attention; and in the following year he publishes his "COTTAGE RESIDENCES." Of this work Mr. Loudon also observes, "This book is highly creditable to him as a man of taste and an author, and cannot fail to be of great service." This latter work, in time, creates occasion for his "ARCHITECTURE OF COUNTRY HOUSES," including designs for Cottages, Farm Houses and Villas, with remarks on the interiors, furniture, and the best modes of warming and ventilating.

Of these, the English and American press offer remarks so similar to those which we have already submitted on his Landscape Gardening, as to supersede the necessity of much amplification. We select the closing words of an English Review of one of these works:

"We stretch our arm across the 'big water' to tender our Yankee co-adjutor an English shake and a cordial recognition." We will add two examples of the American estimate of these productions. Says a gentleman resident on the Atlantic shore, who is eminently qualified to form an enlightened judgment: "Much of the improvement that has taken place in this country, during the last twelve years in Rural Architecture, and in Ornamental Gardening and Planting, may be ascribed to him." Another gentleman, equally well qualified to judge, speaking of suburban cottages in the West, says: "I asked the origin of so much taste, and was told it might principally be traced to Downing's Cottage Residences and his Horticulturist."

Of his remaining works, the "HORTICULTURIST," his monthly journal, which has entered its seventh year, is extensively celebrated for its appropriate, interesting and eloquent leaders—for its numerous and able correspondents—for its varied learning and ripe experience—for its just and faithful reviews—and for its tasteful embellishments and rural decorations.

His "FRUITS AND FRUIT TREES OF AMERICA," a volume of six hundred pages, was printed in 1845, both in New York and London, and in two different forms—the duodecimo with lineal drawings, and the royal octavo, both with these drawings and with col-

ored engravings. It has passed through thirteen editions, and originally combined his personal observation and experience with those of other American fruit growers down to that date.

Besides these productions of his pen, he edited, with notes and emendations, "Mrs. Loudon's Gardening for Ladies," also, "Lindley's Theory of Horticulture," delivered various addresses; submitted reports to public bodies, and contributed numerous articles to the secular, literary and scientific journals of his day.

In addition to these labors, he rendered efficient services to the cause of agriculture and agricultural education. He constantly superintended his homestead—was a corresponding or acting member in many horticultural and kindred associations—was influential and prominent in the establishment of this Congress, and from its origin, chairman of its fruit committee—the author of the rules of "American Pomology," which, with some modifications, have been extensively adopted. He advised and aided in the laying out of grounds, in the plans and specifications of various private and public buildings, and at the time of his death, not only had contracts for important professional services in Newburg, Newport, Georgetown, Albany, Boston, and other places, but was actually on his way to Washington to prosecute the business in which he had engaged by the national government, for the laying out and adornment of the public grounds in that city. He had also projected several new volumes in the departments of his peculiar studies and labors, as well as the revision of his present works. The last effort of his pen was a postscript to a set of working plans to illustrate a design for an observatory, proposed to be erected in one of our principal cities.

Alas! that one so eminently useful, with such brilliant prospects before him, and whose place it is so difficult to fill, should be so suddenly removed! Such is the common exclamation! But this general sorrow may find consolation in his own devout words, in a letter of condolence addressed to me but a few days before his death. They seem prophetic of this hour: "God knows what is best for us."

This dispensation is indeed mysterious; a wonder of Providence such as the All-Wise and Infinite rarely permits. He takes away one to whom we are most attached, and that, too, when we can least afford to spare him. But let us hope that this melancholy event may awaken public attention, and direct it from the man to his pursuits and to their connection with the public welfare, and thus become the occasion of raising up a host to carry out and consummate his worthy enterprise.

We have thus spoken of the last hours of our lamented friend—of the dreadful catastrophe which terminated his earthly career—of the circumstances and influences in which his character was formed—of the great events of his public life—of his published works—and of his plans of future usefulness.

As your humble servant, appointed to speak of his "life, character and virtues," it is not proper for me to indulge personal and private partiality. It has been my endeavor to form such an enlightened judgment of his worth, and such an unbiased estimate of his numerous excellencies, as shall be in harmony with your own opinion, and shall command public confidence and respect.

To speak of his faults, if he had any, was neither our intention nor our duty. Frailties are incident to human nature; but happy is it for us all that common benevolence spreads the veil of charity over the grave, and hides these in its sacred trust from pub-

lic observation. It is the province of the eulogist to speak of what was worthy of honor and imitation in the departed, and of what may also comfort and console the hearts of the bereaved. This we have endeavored to do without exaggeration and without abatement. The duty we perform is without any expectation of adding to the lustre of his fame. His works are his best eulogy; the most enduring monuments of his worth.

But he has gone! His seat in this Congress is vacant! Another will make the report which was expected from him! We shall much miss his wise and leading counsels in our deliberations and discussions, his prompt and energetic action in our endeavors to advance the worthy objects of this association, in the origin and progress of which his agency was so conspicuous. He has gone! He is numbered with those patrons and promoters of the ornamental and useful arts, who rest from their labors;—with the erudite and sage Pickering, the wise and laborious Buel, the ardent and scientific Mease, the humorous and poetic Fessenden, the practical and enterprising Lowell, the tasteful and enthusiastic Dearborn, the indefatigable and versatile Skinner, the scientific and voluminous Loudon, and others of noble designs and of enduring fame. These have fallen around us like the leaves of autumn; and Providence now calls upon us to inscribe on that star-spangled roll the cherished name of DOWNING, struck down suddenly, when his sun was at the zenith of its glory.

He rests in the bosom of his mother earth, in the city of his birth and the sepulchre of his fathers, on the banks of that beautiful river where his boyhood sported, and where the choicest scenery inspired his opening mind with the love of nature—a spot which will be dear to the thousands of his admirers, and which our love for him will constrain us to visit.—We may resort to his hospitable mansion, but he will no longer greet us with his cordial salutation, nor extend to us the right hand of fellowship. We may wend our way through his beautiful grounds; but he will not be there to accompany us. Instead of his pleasant and instructive voice, which once dropped words of wisdom and delight on our ear, we shall hear the trees mournfully sighing in the breeze—the cypress moaning his funeral dirge, and the willow weeping in responsive grief, "because he is not."— "His mortal has put on immortality."

When we think of the place which he occupied in the hearts of his countrymen and cotemporaries—of the expanding interest which he has awakened in the rural arts, the refinements and comforts of society—of his unfinished plans, which others, inspired by his genius, will unfold and consummate—and of his works, which will be admired when the tongues that now praise him shall be silent in death, our sense of justice accords to him an earthly immortality—a fame which history will cherish, art adorn, and grateful posterity revere.

He is dead; yet how little of such men can perish! The clayey tenement may indeed fall and crumble, but to him who dwelt in it, a place is assigned in the firmament of American genius, far above the storms and convulsions of earth—"in that clear upper sky," where he shall shine forever to illumine the path of intelligence, enterprise and virtue, and henceforth to enkindle in the human mind a love of order, taste and beauty. We rank him with those who start improvements which advance ages after they are dead, and who are justly entitled to the consideration and gratitude of mankind. Washington and his illustrious associates are dead, but the liberty which they achieved still lives, and marches in triumph and

glory through the earth. Franklin is dead; but the spark which his miraculous wand drew from heaven, speaks with tongues of fire and electrifies the globe. Fulton is dead; but he awoke the spirit of invention which turns the machinery of man—aye, and he awoke also the genius of navigation.

“And heaven inspired,
To love of useful glory roused mankind,
And in unbounded commerce mixed the world.”

Downing also is dead; but the principles of artistic propriety and ornament, of rural economy and domestic comfort which he revealed, await a more full and perfect development; and as they advance towards their glorious consummation, grateful millions shall honor and cherish his name. His memory shall live forever.

ON TOPPING CORN.

We gave in a former number, some remarks on the cultivation of corn, and intimated our intention to refer more particularly to the practice of topping the stalks, as often practiced by farmers. We now proceed to redeem that promise, as far as we are able, and to suggest a few thoughts which have occurred to us, based on our own, and the experience of others. The subject deserves additional importance the present year, on account of the short crop of hay, which urges farmers to greater economy in the securing of their coarse fodder.

In discussing this question, we may perhaps, assume the following positions as admitted facts, for we believe that their correctness is very generally conceded: 1. The greatest quantity, in pounds, of corn is obtained by allowing the grain to ripen on the stalk. 2. The greatest yield is generally obtained by cutting at the roots before injury from frost, and curing in the shock. 3. The lightest weight of grain is generally obtained by the system of topping the stalks.

If these facts are admitted, we then start with a very strong argument against the practice of topping. Let us see whether the system has or has not advantages to commend it to favor, notwithstanding these causes operating against it.

The principal arguments in favor of topping are that the grain is better cured as a general rule, than in any other way of harvesting and is done with less labor and expense. It is thought too, that the stalks saved are in much better condition than when harvested in any other mode, and many farmers seem to place but little value upon the butts, or lower part of the stalk, for fodder. This opinion is, we think, a mistaken one, for in our experience, we have found the butts worth more for fodder than the tops, especially when properly cured.

The labor and expense of harvesting is not materially different, whether the stalks be topped and the butts afterwards cut at the ground, or the whole crop cut up at the ground at the first instance. The extra labor in cutting up is generally made up in the greater expedition of husking.

The great objection of cutting at the roots before frosts, is in the difficulty of curing the corn and stalks properly. We are aware that many claim that this is an easy matter, but our observation goes to convince us, that in one half the cases at least, both grain and fodder is poorly cured by that system. The fodder when well cured, is unquestionably more valuable than any other mode of harvesting.

The conclusion to which we arrive is that in cases

where great care and attention can be bestowed upon the cutting and stocking, and where the autumn is not apt to be too wet, cutting by the root is the best method. If this care cannot be bestowed upon the crop, and if it cannot have good care in drying, some other system had better be resorted to.

We have seen large quantities of corn cut and stooked, but seldom have we seen a large field saved in good order. Generally the stooks fall down, the rain injures them, the corn and stalks all suffer in quality, and the crop turns out badly. But notwithstanding all these drawbacks, we are convinced of the many advantages resulting from cutting at the roots.

Of the value of corn fodder, and the importance of saving all of it, too much cannot be said. It is, for many purposes, superior to hay, and always pays liberally for the labor and expense of securing in the best manner.—N. Y. Farmer.

WHAT GUANO IS MADE OF.—As Guano is getting to be one of the vexed questions of the day, the following analysis, of our Lobos Guano, recently made in London, has an interest, particularly to the agriculturist:

Salt of Ammonia,	7½ parts.
Animal organic matter,	8½ do
Sulphate of muriate of potash and soda,	2½ do
Phosphate of lime and magnesia,	52 do
Sand,	18 do
Water moisture,	11½ do

Liebig says that one pound of Guano imported into a country, is equal in value to eight pounds of wheat, or twelve and a half cents. It was stated a day or two since, that ten tons of guano at \$50 per ton, was worth to the farmer \$600 net profit.

GUANO AND LIME.—William Boulware, of Virginia, has furnished the *American Farmer* the statement of an interesting experiment, showing that guano is not so evanescent in soils as it has generally been believed to be. Three years ago, 50 bushel of lime per acre was applied to a field of corn in spring. The next autumn, two acres of this field were dressed with 200 lbs. of Patagonian Guano, and the whole field sown with wheat. A part was sown with clover the next spring. The wheat looked much the best on the guanoed part during spring, but lost much of its superiority in the drought of summer, the soil being light. But the clover took well, and the next year yielded a luxuriant crop after the guano, but on other parts of the field was not worth cutting. After second crop of clover, wheat was again sown, and on the two guanoed acres it was one hundred per cent. better than on that which was limed only, and otherwise of equal fertility.

MAKING VINEGAR.—Vinegar, according to a writer in the *Genesee Farmer*, is cheaply made. We re-publish his recipe:—

“To eight gallons of clear rain water, add three quarts of molasses; put into a good cask, shake well, and add two or three spoonfuls of good yeast cakes. If in summer, place the cask in the sun; if in winter, near the chimney, where it may be warm. In ten or fifteen days, add to the liquor a sheet of brown paper, torn in strips, dipped in molasses, and good vinegar will be produced. The paper will, in this way, form what is called the ‘mother,’ or life of the vinegar.”

Book Notices.

The North American Sylva; or a description of the Forest Trees of the United States, Canada, and Nova Scotia, &c., Illustrated by 156 colored copperplate Engravings, by Redoute Bessa, etc. By F. Andrew Michaux, Robert P. Smith, Phila., Publisher.

We are under heavy obligations to the enterprising publisher, for a copy of this superb work. The accuracy with which the engravings are executed, and the beauty and faithfulness of the coloring, together with the valuable descriptions accompanying them, all serve to render these volumes indispensable to those desirous of familiarizing themselves with the forest trees of North America.

From the preface we learn that the foundation of the great work was laid by the elder Michaux, who devoted ten years—from 1785 to 1796,—to an exploration of North America, from Florida to Hudson's Bay.

The History of North American Oaks which formed the nucleus of the complete work, was published shortly before the death of the father. The younger Michaux visited this country subsequently, and the magnificent volumes before us are the result of his visit and extended researches.

The Sylva was first published in France in 1810–13. The first English edition translated by Hillhouse, was published in Paris. This was soon exhausted, and a second produced at New Harmony in Indiana, under the superintendence of the distinguished William Maclure. The style in which this edition was got up, was so bad, and it abounded in so many, and such gross typographical errors, that it proved nearly worthless, and wholly unsaleable. After the death of Mr. Maclure, his brother and executor, presented the original plates to Dr. Samuel George Morton, of Philadelphia, who desirous of seeing a handsome American edition, successfully exerted himself to procure a publisher, and prevailed upon his brother-in-law, Mr. J. Jay Smith, to become the editor. Under the latter gentleman's superintendence the present beautiful edition has been produced, the translations having been rendered more accurate and the plates retouched where necessary. A glance at the work is sufficient to satisfy every one that the coloring of the plates has been done at heavy expense, by experienced artists, and under most able and careful supervision, and will compare favorably in every respect with the original. The notes added by Mr. Smith are extremely valuable, and every department of the work has been got up in a style creditable in the highest degree to all concerned in it; and what is also of great importance the price has been reduced one-half.

The same publishers have also issued the continuation of Michaux's great work, by Nuttall, who begins where Michaux left off. The continuation by

Nuttall comprises three magnificent volumes, embracing all the newly discovered trees of California, New Mexico, and Oregon. In speaking of these volumes Mr. Smith says:

“It was a singular circumstance, and a happy one it has proved for advancing science, that Mr. Nuttall arrived in this country the very year that the younger Michaux left it. From that time he devoted his talents to Botany, and after visiting a large portion of the United States, with an aptitude of observation, a quickness of eye, tact in discrimination, and tenacity of memory, rarely possessed by one man, he published his extended, and most happily executed botanical work, the ‘Genera of North American plants.’ In 1834 he crossed the Rocky Mountains, and explored the territory of Oregon, and Upper California. With his peculiar qualifications, he prepared the supplement to Michaux's Sylva, in three handsome volumes, corresponding in size with the present, the publication of which, after many delays, was completed in 1849, by my son, in Philadelphia. The two works are now one and homogeneous, the former most highly valued by all lovers of trees, and the latter destined to be equally so, when the fine products of our newly acquired western regions make their way to our gardens and plantations.—The frequent references I have made to Mr. Nuttall's volumes, will show the reader that his addition to our Sylva, are both extensive and important; inspection will convince him that both authors stand on the highest pedestal of merit.”

Persons desirous of examining these splendid volumes can be gratified by calling at our office, or full information can be obtained by applying to Robert P. Smith, Publisher, Philada.

Agricultural Productions of Pennsylvania according to the Seventh census—1850:

Acres of improved land,	8,628,619
Acres land unimproved,	6,294,728
Cash value of farms,	\$407,876,099
Value of farming implements, Machinery, &c.,	\$14,722,541
Horses,	\$350,398
Asses, Mules, &c.,	\$2,259
Milk Cows,	\$530,224
Working Oxen,	\$61,527
Other Cattle,	\$562,195
Sheep,	\$1,822,357
Swine,	\$1,040,366
Value of Live Stock,	\$41,500,053
Wheat,—bushels of,	15,367,691
Rye,	4,805,160
Indian Corn,	19,835,214

THE PENNSYLVANIA MUTUAL LIVE STOCK INSURANCE CO.—CAPITAL, \$50,000!—Charter Perpetual. This Company is now fully organized, and prepared to insure against the combined risks of *Fire, Water, Accident and Disease*, all descriptions of *Live Stock*, such as Horses, Mules, Cattle, Sheep, &c.

Office, No. 21 Fifth street, Pittsburg, Pa.
DIRECTORS: Alex. Jaynes, President; Benj. M'Lain, Secretary; Wm. Day, Alex. Hilands, Wm. O. Leslie, James Mathews, Henry A. White, W. Bakewell.

Forms for proposals, and all necessary information can be obtained by calling at the office of the Company. [October, 1852.]

[OCTOBER,

WARMING and VENTILATING according to the laws which govern the Elements of Heat and Air. **CHILSON'S** celebrated Warming and Ventilating Apparatus. The great superiority of this apparatus over all others for warming and ventilating dwellings, stores and public buildings of every class, acknowledged by more than *two thousand testimonials*.

- 1st. Its great power of giving heat;
- 2d. Its great economy in fuel;
- 3d. Its great durability;
- 4th. The purity of warm air produced;
- 5th. Its simple and easy management.

All parties are invited to examine this apparatus before purchasing the old fashioned furnace.

Manufactured and for sale by
S. A. HARRISON,
146 Walnut street, Sole Agent for Emerson's Ventilators.
[October, 1852. 1v.]

FINE SHANGHAE FOWLS.

The undersigned is prepared to furnish fine fowls and chickens of the real Shanghai breed, from the celebrated stock of Dr. Jas. McClintock, of Philadelphia, at reasonable prices.
Sept.-4ms] **FRS. A. THOMAS,** Columbia, Lancaster co., Pa.

FOR SALE.

Improved Short Horn and Alderney cattle of different ages, the greater part of them bred on the farm of Thomas P. Remington, Esq. Many of the Short Horns are descendants of the herd of the late Mr. Bates, of Kirkleavington, England, justly celebrated as one of the best and most scientific breeders of the age.

The Alderneys are from the best imported stock. The cows of that breed are unrivalled as rich milkers. Apply to **AARON CLEMENT,** agent for the purchase and sale of improved stock, &c., Cedar st., above 9th st., Philadelphia. Sept. 1852.

COCHIN CHINA FOWLS FOR SALE.

THE subscriber offers for sale a few pairs of his fine stock of COCHIN CHINA FOWLS, of his own importation, warranted pure blood and true to their name. Orders for the same, post-paid, addressed to the subscriber, will receive due attention.
CHARLES SAMPSON, West Roxbury, Mass.

SHANGHAES!

THE subscribers take this method of informing the citizens of Lancaster and vicinity that they have on hand and for sale a large and beautiful stock of Shanghai fowls, the superiority and good qualities of which cannot be surpassed by any in the country. Since the first importation of these fowls from Shanghai, China, they are becoming very generally known, particularly in the New England States, and are eagerly sought after for their general good qualities, good laying properties and early maturity, which render them far superior to any other fowl in America.

These fowls can be seen at G. W. Arnold's, in South Duke st., opposite the public schools, or by calling on T. B. Gould, at Cooper's hotel.
T. B. GOULD,
G. W. ARNOLD.
June, 1852.)

J. & D. FELLEBAUM.

Manufacturers of all kinds of Steam Engines and Boilers, Slide and Hand Lathes, Mill and Press Screws of all sizes, &c.
West Chestnut st., Lancaster, Pa.

We also furnish castings of the best materials, and at the most reasonable prices. Having had fifteen years practical experience in the manufacture of various kinds of machinery and iron work, we are able to warrant our work to give satisfaction to all who may favor us with their patronage.
[June, 1852.]

FRUIT AND ORNAMENTAL TREES FOR SALE.

50,000 Peach Trees of one and two years growth, from the bud; 40,000 Apples; 5,000 Cherries; 5,000 Dwarf Pears, each containing all the most esteemed varieties, and of large size. Also, Quinces, Plums, Nectarines, Apricots, Almonds, Grapes, Raspberries, Gooseberries, Currants, Strawberries, &c., &c. 50,000 Silver and Ash-leaved Maple Seedlings of one years growth; 50,000 Apple Seedlings. The above will be sold on the most reasonable terms. Persons residing at the south and west should send their orders early. Catalogues with prices annexed will be sent to all applicants.
ISAAC PULLEN,
February, 1852—2 mos.) Hightstown, Mercer co. N Jersey.

ALDERNEY AND IMPROVED SHORT HORN CATTLE.

THREE thorough bred Alderney BULLS, from nine to eleven months old, raised from the choicest imported stock. Also, two thorough bred young short horn Bulls, ten months old, raised on the farm of Mr. T. P. Remington, near Philadelphia, and for sale by **AARON CLEMENT,** Agent for the purchase and sale of improved stock, Cedar street, above 9th street, Philadelphia.
February 2d, 1852.

FRUIT & ORNAMENTAL TREES & SHRUBBERY

The subscribers offer for sale the present fall, at their Nursery, Garden & Green-house Establishment, West Chester, Pa., a large and select assortment of the different kinds of FRUIT TREES which they offer by wholesale or retail, at reasonable prices, viz: Apple, Pear, Peach, Plum, and Cherry trees, Apricots, Nectarines, Figs, Filberts, Walnut, Strawberry, Raspberry, Gooseberry, Currant, in great variety, Quinces, Almonds, hardy and tender Grape Vines. Also a fine collection of Dwarf Pears on Quince adapted for immediate bearing, and embracing some 25 or 30 varieties. Some of them now in fruit.

Also Evergreen and Ornamental Trees and Shrubs, both of native and foreign growth, of all the most desirable kinds for our climate. Norway Firs, Balm of Gilead, Austrian and Scotch Pine, Lebanon and Beadard Cedars, Cryptomeria, Japonica, Chili Pine, Himalayan Spruce, several varieties of Box, Arbor Vita, Hollies, nine varieties of Junipers, English and Irish Yew. Also a large collection of hardy roses and green house plants. Bulbous roots, including 40 varieties, imported Phloxes, Verbenas, Dahlias, English double Holly-hocks, very choice chrysanthemums, &c., together with all other articles usually found in similar well conducted establishments.

Orders by mail promptly attended to, and trees and plants carefully packed, and forwarded as directed. Catalogues furnished on application.
PASCHALL MORRIS & Co.
Nursery, Seedsmen & Florists, West Chester, Pa. Sept.

FRUIT & ORNAMENTAL TREES.

ELLWANGER & BARRY desire to call the attention of Nurserymen, dealers and planters to the immense stock of Trees now on their grounds embracing Fruit Trees of every description, viz: Standard Apples, Pears, Plums, Cherries, Peaches, &c., on free stocks for Orchards—vigorous and well formed.

Dwarf and Pyramidal Pear Trees, on quince stocks, about 100,000, embracing every fine variety that can be so worked, 2 years old, trees low branched, vigorous and beautiful.

Dwarf and Pyramidal Cherries, on mahaleb stocks, fine one, two and three year old trees; well branched and finely formed.

Dwarf Apple Trees, on paradise and doucain stocks, beautiful 2 year old trees with heads, for immediate bearing, besides vigorous yearlings.

Gooseberries, large Lancashire sorts, strong plants for immediate bearing.

Currants, including the Cherry, Victoria, White Grape and many other new and fine sorts. See our catalogue.

Raspberries, the new large fruited monthly, Fastolf, &c., &c. A complete collection of all desirable varieties.

Grapes, hardy native sorts, such as Isabella, Catawba and Clinton, strong 2 and 3 year old varieties of foreign grapes for vineries, strong thrifty plants in pots.

Strawberries of all desirable varieties. Rhubarb, a large stock of the best varieties in cultivation, and all other fruits cultivated.

The entire fruit department is under our own personal supervision. The best quality of stocks is used, and the most scrupulous attention given to ensure accuracy: we flatter ourselves, that no Nursery collection can offer a stronger guarantee to purchasers in this respect. The stock is all grown on new fresh soil, and is healthy, well manured and hardy. We ask purchasers to examine it.

ORNAMENTAL.—Large trees for streets, parks, &c. Such as horse chestnuts, silver maples, snowy abeles, mountain ash, elms and tulip trees, in large quantities, cheap.

RARE ORNAMENTAL LAWN TREES, embracing the most novel, remarkable and beautiful trees, and shrubs, both deciduous and evergreen that can be grown in our climate, for particulars we refer to the descriptive catalogue.

ROSES.—One of the richest collections in the country, including the newest and best European varieties, selected by us last summer in person.

Bulbous Roots, imported annually from Holland, can be supplied after 1st Sept.

Dahlias. The new English and French prize varieties of 1851, besides fine older ones.

All articles packed in the best manner and forwarded to any part of the U. S., Canada or California. Orders strictly complied with in every particular. The following catalogues are sent gratis to all who apply and enclose stamps to cover postage which must be prepaid.

No. 1.—A Descriptive Catalogue of Fruits.

No. 2.—" " Ornamental Trees, Shrubs, &c.

No. 3.—A catalogue of Dahlias, Fuchias, Chrysanthemums and budding plants.

No. 4.—A wholesale catalogue, for Nurserymen and others, who wish to purchase largely.

Postage on Nos. 1 & 2—500 miles or under 3 cts; 500 to 1500 m. 6 cts. " 3 & 4—500 " 1 " " 2 "

Sept. 1, 1852. **MOUNT HOPE NURSERIES.** Rochester, N. Y.

SHANGHAE & COCHIN CHINA FOWLS For Sale.

The subscriber has on hand a number of young Cochin China & Shanghai Fowls of the latest importation, which he will dispose of at fair prices on post paid application, addressed to
PHILIP HUNT,
West Phila., Chestnut st., 2nd door West of Pub. School House

CORNELL'S IMPROVED SELF-REGULATING HORSE POWER.

On the endless chain plan, for which letters patent were obtained in February, 1852, is now offered to the public with the assurances that it will be found to possess advantages over all others now in use. It will operate at a LESS GRADE, will give more power at the same grade, and with less labor to the horse than any other. The comparatively small elevation at which this power operates efficiently, relieves that ruinous amount and kind of labor which other powers generally impose upon horses, and it is believed that its advantages in this important respect alone, if it possessed no other, must give it character, and bring it into very general use. But this result is further promoted by a most happy combination of forces which gives to it an exceedingly light and easy motion. The platform drums are large, and the arrangement of the whole driving apparatus upon friction rollers reduces the friction of the machine to such a slight amount that an almost inappreciable fraction of the power exerted by the horse will put the whole in motion. It is therefore peculiarly adapted for driving light machinery, where an excess of speed would endanger the machinery driven; and yet the solidity and strength of the power are such that it is equally well adapted to the driving of the heaviest kinds of machinery.

But it possesses other advantages—the Power is under the control of a GOVERNOR OR SELF-REGULATOR. As Horse Powers are generally constructed, no efficient means are provided for regulating the speed, or guarding against accidents arising from undue velocity. A portion of the machinery driven, or of the Power itself, may be thrown out of gear, and from this cause or some other, a greatly increased velocity may be given to the remaining parts of the machinery, and an increase of speed dangerous to the limbs of the horse. All such difficulties are entirely obviated by a Governor and Friction Brake, which regulate and control all undue velocity of the Power. Cornell's Power thus constructed, regulated and controlled, is singularly capable of the highest execution which such machinery can attain, and with safety. It is adapted to one or more horses, as may be desired.

Although but very recently produced, a large number of the Powers have been sold in a community in which those of Wheeler, Emery & Co., and others have been in use.

First Premium at Philadelphia County Exhibition.

At the Exhibition of the Philadelphia County Agricultural Society, held at the Rising Sun, October, 1851, the highest premium was awarded to Cornell's Power, although in competition with that of Emery & Co., and others.

The power exhibited above was new, and made without reference to such public exhibition, but, although subjected to the close examination of the very competent gentlemen who composed the official members of those associations, the result has been of the most flattering kind.

First Premium at Bucks County Exhibition.

Cornell's Horse Power was exhibited at the Bucks County Exhibition held at Newtown, October, 1851, and obtained the highest premium, although in competition with Wheeler's and others.

Additional information can be obtained by letter as above directed, and the Power is always open to inspection at the Depot, No. 156 Vine street, below Fifth, Philadelphia. The Patentee is open to negotiation for the sale of Township, County or State Rights.
August, 1852.—3m.

TO THE FARMERS OF PENNSYLVANIA. SHRIVER & McLEAN.

PRODUCE & COMMISSION MERCHANTS.

34 S. Water Street, PHILADELPHIA.

Respectfully inform Farmers, Millers and others, that they are prepared to attend to all business entrusted to their care, with dispatch and promptness, and with an eye to the interest of those who may patronize them.

FRESH GARDEN SEEDS.

PEAS, Beans, Cabbage, Cucumbers, Celery, Radish, Lettuce, Beets, Parsnip, Carrot, &c. Grown and warranted fresh and genuine, by
D. LANDRETH,
Agricultural and Horticultural Implement and Seed Warehouse, 65 Chestnut street, Phila.
[August, 1852.]

CHOICE SHANGHAE FOWLS.

THE subscriber offers for sale a few pairs of choice young Shanghai fowls, sired by the celebrated cock "Washington," now owned by Dr. McIntoch, and reputed to be the best fowl in Pennsylvania. Also a few pairs of White Shanghaes.
P. H. WHITNEY,
No. 314, Market st., Phila.

August, 1852.)

DRILLS! DRILLS!! DRILLS!!!

WE are now manufacturing the LARGEST and BEST ASSORTMENT OF SEED PLANTERS ever offered to the public; several varieties of which we have constantly on hand. Those interested are respectfully invited to call, examine and satisfy themselves of their merits.

We have so improved and simplified our Drill, as to enable us to sell it at the following reduced rates:

One with seven tubes and wooden Seed Roller, quantity regulated by Screws, \$50 00

For each additional Tube, 7 50

Seven Tabled do, iron Seed Rollers, regulated with screws 85 00

Each additional Tube, 10 00

Seven Tabled do, Single Hopper, and Patent Iron Seed Rollers, which, by the movement of a single screw, is regulated to seed any desired quantity per acre, 85 00

Each additional Tube, 10 00

In addition to the foregoing, we are building a large number of Slide Drills, which have been satisfactorily tested, and are warranted decidedly superior to any other Slide Drills in the market, particularly in the even distribution of the Grain upon rough and hilly ground; also in the facility and precision by which it is regulated to sow any desired quantity per acre, as well as in the lightness of draft, and general simplicity and durability.

For one of these Machines with seven Tubes, \$50 00

Each additional tube, 5 00

The above Machines are Warranted not to Cut, Break, or Waste Grain; to be made of the best materials, in a substantial and workmanlike manner, and to do the work more perfectly than any other.

They are not liable to choke with white caps or straw, and are suited to rough and hilly, as well as smooth and level land.

Owing to the peculiar form of our depositing tubes, they run easier and free themselves from filth better than any others.—These Tubes are supplied with Reversible Steel Points, either end of which can be extended as they become worn. The simultaneous throwing into and out of operation of the Seed distributing and depositing apparatus, (which we have patented) renders our machine capable of being managed with much more ease and certainty, particularly in seeding point and other irregular lands, than any other Seed Planter.

We also manufacture Horse-Powers and Threshers, Clover Hullers, with and without Fans, Horse-Rakes, Corn-Shellers, &c. Also, Steam Engines and Mill Work. Screw Cutting done to order; Castings of every description, of the best quality, furnished at Wilmington Prices.
S. & M. PENNOCK,
Kennet Square, Chester county, Pa.

P. S.—Paschall Morris & Co., West Chester, are Agents for any Machinery we build.
July 1, 1852.—3m.

GUANO AND PLASTER.

THE subscribers offer for sale at the lowest market rates,

1000 Tons Dry Patagonia Guano,

500 " Government Peruvian Guano.

500 bls. Ground Plaster.

The quality of the above is unsurpassed, and can be recommended with confidence to farmers and others in want of the articles. A liberal deduction made to Country Merchants.

ALLEN & NEEDLES,
No. 22 & 23, S. Wharves, First Store above Ches. st., Phila.

R. BUIST,

NURSERYMAN & SEED GROWER,

HAS always on hand at his seed Store, 97, Chestnut Street, Philadelphia, a large stock of Seeds of his own growth, a very important item to purchasers, as he is a practical grower, and has been engaged in his profession over 50 years. His nursery ground is amply stocked with Fruit, Shade and Ornamental Trees, accurately named and properly cultivated. Every article sold at the lowest rates, and warranted to be as represented.
Seed Store, 97 Chestnut Street, Philadelphia. Nurseries and Seed Farm, Darby Road, two miles below Gray's Ferry.
June 1, 1851. **R. BUIST**

The following at 37 cts. per dozen, and \$2 per hundred:

Myatt's Eleanor, Mammoth, Globe, British Queen and Prolific Hautbois; Lizzie Randolph, Black Prince, Jenny's Seedling, Iowa, Schiller, Burr's new Pine, Rival Hudson, Scarlet Melting, Columbus, and Scioto; Elwanger and Barry's No. 1. Monroe, Genesee, Climax, and Orange Prolific; True Bishop's Orange, Black Rock, Abyssinian Prince, Eberlein, Green and Flat Hautbois, Red and White, Bush Alpine and Elton Pine.

The following at 25 cts. per doz., and \$1 per hundred:

Large Early Scarlet or Early Virginia, Crimson Cone, Hovey's Seedling, Boston Pine, Hudson, Wiley, Methven Scarlet, Necked Pine, English White and Red Wood, White and Red Alpine, and Dundee.

Herbaceous Perennials of above 100 splendid Chinese double varieties, and Tree Perennials of 40 varieties.

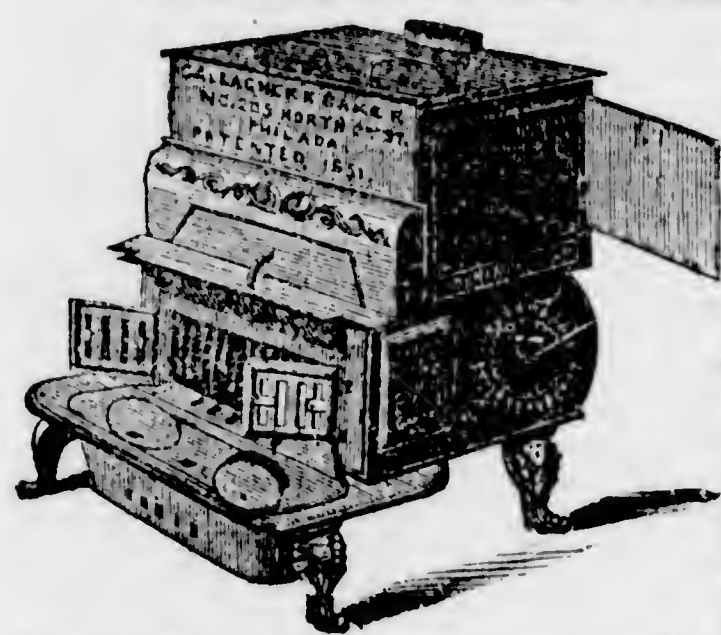
Tulips, Hyacinths, Japan Lilies, and all other Bulbous Flower roots, including the White and Yellow Calceolarius of California. Victoria, Colossal and other kinds of Rhubarb; Sea Kale and Asparagus, which can now be transported. The finest European Table Grapes, in pots, \$5 per dozen.

The following Strawberries have been rejected:

Richardson's Early, Late, and Cambridge; Burr's Seedling, Mammoth, Profusion, and Late Prolific; Deptford Pine, Myatt's Eliza, Lord Spencer, Old Pine, Cushing, Princess Alice Maud, Swainstone, Keen's Seedling, Duke of Kent, French Cucumber, Royal Pine, Buist's Prize, Downton, Knevett's Pine, Royal Scarlet, Princesse Royal, Prince of Orleans and above 40 others as stated in our Catalogue.

All will be well packed and forwarded as directed. Descriptive Catalogues of all Trees and Plants with prices will be sent to post paid applicants who enclose stamps. [September 1st, 1852.]

THE GREAT STOVE WAREHOUSE.



Persons in want of Stoves of any description can be accommodated by calling at the establishment of the subscriber, North Queen st., Lancaster, Pa.

Having greatly enlarged his Warehouse, and having also en-

tered into an arrangement with the celebrated Stove Manufacturers of Troy, Albany, New York, Philadelphia, and Lancaster, he is prepared to sell Stoves for the Parlor, Kitchen, Bar-room, or Store, at *Manufacturers' prices*.

He also begs leave to state that he is the *sole Agent in Lancaster* for the CELEBRATED GLOBE STOVE, and would caution the public against the imitations of this celebrated Stove, now in the Lancaster market. As they are unquestionably the best Cooking Stove in use, it is important that those who are looking for such an article should know that the only place where the *genuine one* can be had is at his establishment. He is able to refer to more than fifty respectable families in Lancaster co., where there Stoves are now in daily use. Wherever they have been tried, they have superseded all others.

G. D. SPRECHER,
Sept. 1, 5m.] North Queen st., Lancaster.

TO FARMERS—SALINE FERTILIZER.

This preparation is designed to furnish the soil the various mineral or inorganic materials abstracted from it by plants in the process of vegetation.

It contains a large proportion of the salts of Potash, Soda and Ammonia, combined with Bi-Phosphate of Lime, Animal Charcoal, and other fertilizing matter; the whole forming a highly concentrated manure.

In thus offering a new article to the attention of farmers, the relative value of which remains to be tested by experience, it is desired not to venture upon any assertions respecting it, calculated to excite expectations, which perhaps might not be realized; knowing, however, that the principal constituents of this compound have been proved to be highly valuable separately, it is confidently believed that their combination in proper proportions in the "Saline Fertilizer" will form an excellent manure.

DIRECTIONS FOR USE.

The Fertilizer should be applied at the rate of two barrels to the acre, and spread broadcast on the surface.

If, on opening the barrels, the salts should be found adhering together in lumps, they should be broken, say with the back of a shovel, upon a floor or smooth surface, and if convenient, a little good dry mould may be added, and well mixed before spreading.

For Wheat or rye, one barrel per acre may be used before sowing, and lightly harrowed in, and the other applied as a top dressing early in the spring, at the commencement of the first thaw.

Upon Grass it should be sown broadcast, and, if possible, when the ground is wet, or when there is a probability of rain, to dissolve the fertilizing salts; generally late in the fall or early in the spring, will be found to answer best.

Upon Corn, it would perhaps be advisable to apply one barrel in the hill, and one broadcast.

If added to the manure or compost pile, the Fertilizer will doubtless increase greatly the efficacy of the mixture.

The experience of agriculturists will probably suggest other modes of employing it, as soon as they become satisfied of its utility. It should not, however, in any case, be mixed with quick-lime which will cause a loss of Ammonia, nor should it be buried deeply in the soil.

Price, \$2.50 per barrel.
Manufactured and for sale by
CARTER & SCATTERGOOD,
Office, 54 Arch st., Philadelphia.
June, 1852)

PUMPS, FIRE ENGINES, CAST IRON FOUNDRIES, &c., &c.

The subscriber manufactures Double-acting Lift and Force Pumps, (perpendicular and horizontal,) of any size or capacity, which from their simple construction are well calculated for Factories, Mines, Railway Water Stations, Tanneries, Breweries, Irrigation, Hydropathic establishments, or any other situation where water is required.

VILLAGE AND FACTORY FIRE ENGINES.

Having a double-acting force pump. They are light, easily handled and worked by few men.

Cistern and Well Pumps, for in or out doors.

Garden Engines, with a small size double acting lift and force pump. Arranged with or without suction. They are so adjusted that one person can wheel them from place to place, and are well calculated for agricultural and horticultural purposes.

Ornamental cast-iron Fountains of various styles and prices.
Copper Rivetted Hose of all sizes, Hose Couplings, Stop cocks, Lead and cast-iron pipes, &c.

I am now ready to receive orders and build Steam Engines from 3 to 15 horse power, portable or stationary, horizontal or perpendicular. I shall build them in as simple a style as possible, combined with strength and sure of getting at every part, and adapted for any purpose required. When an engine is required for raising water of any amount, I can adjust the pumps in a compact form easily got at, and disconnected from the engine, when not required for pumping. In many situations steam is the most profitable mode of raising water, as the engine can be used for other purposes to advantage.

Also prepared to receive orders or give information upon Lathes, Planers, Presses, Shafting, Pulleys, and machinist tools in general, from the firm of Messrs. O. Snow & Co., Meriden, Conn.

Any communications by mail will have immediate attention.
G. B. FARNAM, 34 Cliff st., near Fulton, N. Y.

AGRICULTURAL IMPLEMENT WAREHOUSE.

No. 65, Chesnut street, Philadelphia.

THE subscriber offers for sale, Hay, Straw, and Cornstalk Cutters; Cornstalk Cutters and Grinders; Corn Cob Crushers and Grinders; Corn Shellers and Separators; Root Cutters, of the most approved patterns, warranted to cut, by hand power, from one to two bushels of roots per minute; Bamforth's celebrated Grain Fans; Grain Cradles, Revolving Hay Rakes, self-sharpening Plows, various patterns; plain point Plows of various patterns; Subsoil Plows, Harrows, Cultivators or Hoe Harrows, Churns, Seed Drills, Corn Planters, Corn Shellers, Scythes, Grass Hooks, Spades, Shovels, Rakes, Hoes, hay and manure Forks, &c., &c.

Orders received for any and every Agricultural Implement now in use, which will be furnished at manufacturer's prices.

D. LANDRETH,
No. 65, Chesnut st., Phila.
August, 1852.)

VALUABLE REAL ESTATE AT PUBLIC SALE.

On TUESDAY, the 5th day of October next, 1852.

The undersigned will offer at public sale, upon the premises of No. 1, the whole of his valuable real estate, situated in Conoy twp., Lancaster county, about a mile and a half from Bainbridge, as follows, viz:

No. 1, Consisting of about 241 ACRES, more or less, of superior limestone land, under good fences and the best of cultivation, 13,000 bushels of lime having been put upon the fields within the last six years. The improvements are three good DWELLING HOUSES. Two large barns, (one of them new) and the usual number of out-buildings. The Woodland comprises about 25 Acres. This property adjoins the Susquehanna River, Pennsylvania Canal, and the Rail Road leading from Columbia to Middletown and Harrisburg, directly upon which are two of the best Limestone Quarries in the State, with 6 Kilns, capable of burning from 15,000 to 20,000 bu. of lime per month, together with a new Dwelling House, shedding, and all necessary fixtures for loading boats in the Canal. If desirable about 100 Acres will be sold separate with the Buildings and Barn now occupied by James McClure, as a tenant. The balance, including the Quarries and Lime Kilns, two Tenant Houses, and a new Barn, will be sold with the Stone Mansion House, as No. 1.

No. 2 is an Island, containing about 87½ ACRES, situated in the Susquehanna River, directly opposite the town of Bainbridge, which is under good fence and cultivation. The improvements are a good, large Barn, New Tenant House, new and commodious Tobacco Shed, and other out-buildings.

No. 3 is a Lot of Ground in the Borough of Elizabethtown, upon which are erected a large two-story Brick Dwelling House, stabling, &c., &c. This property is now in the occupancy of Henry Greenawalt, who will give any further information required. Persons desirous of viewing the above properties will please call upon the subscriber.

Sale to commence at 1 o'clock P. M., upon the premises of No. 1, when terms will be made known.

JOHN HALDEMAN.

Also, at the same time and place, I will offer for sale part of my property, adjoining the above No. 1, containing about 150 ACRES. This farm is under good fences and in a high state of cultivation; has a valuable young Orchard (just coming into full bearing), a good proportion of Timber Land, great quantities of Locust, and several Limestone Quarries. The improvements are a two-story Dwelling HOUSE, barn, grain-house, and the number of out-buildings required upon a farm. This Tract is also adjoining the Susquehanna River Canal and Rail Road, and the well known Locust Grove, Grist Mill, and Distillery, (forming a market at your door) as well as the Mansion residence of the subscriber, who will be pleased at any time to give further information and particulars. The terms will be of the easiest description.

CYRUS S. HALDEMAN.

BUILDING HARDWARE AND TOOL STORE EXCLUSIVELY.

The largest and only establishment of the kind in the United States. WM. M. MCCLURE & BRO., No. 287 Market Street, above 7th, Philadelphia.—Manufacturers' Depot for locks of all kinds, warranted quality; Premium Porcelain Knobs, over 60 patterns; Silver Plated Hinges, &c., with the most complete assortment of all the modern patterns in this line. Builders and dealers are invited to call and examine our stock. Catalogues sent by mail if directed. Hot Air Registers and Ventilators at Factory Prices. [Sept. 1852—5m-6]

PREMIUM STRAWBERRIES, BULBS, PÆONIES, &c.

WM. K. PRINCE, & CO., Linnean Gardens and Nurseries, Flushing, offer the following Strawberries, which have been selected from all the varieties at present known, the others having been rejected, and all these are described in their Supplement Catalogue of 1852.

Le Baron, large, productive, and highest flavor of all, \$2 per dozen.

Monstrous Swainstone, very large, delicious flavor, \$1 per dozen.

Maximus Swainstone, very large, high flavor, \$1 per dozen.

Charlotte, large, delicious, sprightly flavor, productive, 50 cts. per dozen.

Superlative, spicy, rich flavor, a productive seedling of Burr's new Pine, \$1.50 per dozen.

Coronation, very large, very productive, seedling of large Early Scarlet, double in size, and thrice as productive, \$2 per dozen.

Primrose, large, deep scarlet, productive, \$1 per doz.

Champion, very large, scarlet, oblong cone, \$2 per dozen.

Twice-bearing Swainstone, a second crop in September very productive, \$1 per dozen.

Sylphide, very large, light scarlet, beautiful, excellent, \$1 per dozen.

N. B. We guarantee the above 12 varieties to be superior to any other dozen that can be produced, and the first four are superior to Burr's new Pine. The following, \$1 per dozen, except where priced otherwise:

Crimson Pine, conical, sweet, rich, very productive.

Cluster Hudson, conical, scarlet, very productive.

Cornucopia, large, good flavor, productive, 50 cts. per dozen.

Profuse Scarlet, like Early Scarlet, but produces double, 50 cts. per dozen.

Primordial, beautiful Scarlet, productive, not high flavor, 37 cts. per dozen.

Tivoli Scarlet, very large, beautiful estimable, very productive.

Unique Scarlet, light scarlet, rich flavor, moderate bearer, 37 cts. per dozen.

Lodoisk, scarlet, excellent flavor, productive.

Spiral, elongated cone, usually produces second crop in September.

Victorine, large, fine flavor, very productive.

Dido, very large, rich flavor, productive.

Iphigenia, large, fine flavor, productive.

Sylvestris, scarlet, conical, very productive.

Campagna, large, crimson, pointed cone.

Mytelene, crimson, roundish, rich flavor.

Psyche, large, beautiful, excellent, very productive.

Amanda, light scarlet, juicy, productive.

Warrington, large, crimson, conical.

Predonia, large, pointed cone, productive.

Triumphant Montevideo, ovate, monstrous, deep scarlet, \$3 per dozen.

NOTE.—The preceding 32 varieties were originated by ourselves, and most of them are no where else to be obtained.

McAvoy's Superior, Schneick's Pistillate, Longworth's Prolific, Moyamensing, Walker's Seedling, Huntsman's Pistillate, Bieton White, Myatt's Prolific, Surprise, and Hautbois; Rivers Eliza, Californian Pine, Mexican Alpine, La Deliciosa, Victoria, La Liegoise, Britannia, all at \$1 per dozen.

Merville, largest French variety, \$2 per pair.

Montevideo Pine, very large, beautiful, \$2 per doz.

Goliath, very large, \$2 per dozen. Crescent Seedling \$3 per pair.

FARMERS! LOOK TO YOUR INTEREST!

STILL GREATER IMPROVEMENTS IN GRAIN
DRILLS.
PRICE REDUCED TO SIXTY DOLLARS!



MOORE'S PATENT
SEED AND GRAIN PLANTER.

This Machine was Patented July 2, 1850, and has received the highest premium at all the Exhibitions where it has ever been contested; including New Castle County, Delaware, Agricultural Society, October 9th 1850; Philadelphia and Delaware County Agricultural Society, October 17th, 1850; Maryland State Agricultural Society, October 23d, 1850, and October 24th, 1851, and Michigan State Agricultural Society, September 25th, 1851.

THE ABOVE DRILL is not liable to get out of repair, is exceedingly simple in its construction, will sow point rows in all irregular shaped fields, and possesses superior advantages to all others in the ease and quickness with which it can be regulated to sow any desired quantity of Grain per Acre, while the draft upon the horses is twenty-five per cent. lighter, and consequently with the same labor, can seed one-fourth more ground per day than with most other machines now in use. The objection so common to Drilling Machines of becoming CHOKED if the seed is not perfectly cleaned, is entirely obviated in the Simple and Peculiar construction of this Drill, as white

MYERS' CHEMICAL ANIMAL MANURE.

That of offering to the public a Manure which comprises all that could be wished—its cheapness and surprising effects in producing larger crops in any kind of soil—is lasting and enduring qualities.

The subscriber offers this Manure to the public with a full knowledge of its powerful effects upon ground where used. This Manure must take its precedence above all others; its adaption to all kinds of soil, and every particle of fertilizing properties being preserved in the mode of manufacture, render it at once cheaper than any other manure used for all kinds of crops. Its effects are wonderful. A supply always on hand.

WM. MYERS,
Seventh Street near Germantown Road, Kensington, Phila.

READ THE FOLLOWING CERTIFICATES

GERMANTOWN, October 8, 1851.

To Mr. Wm. Myers—Sir—Having tried your Chemico-Animal Manure upon potato ground, this season, I find it produce one-third more and larger potatoes than the best horse manure in the same ground.

WM. K. COX.

The following additional certificate just received, speaks for itself.

WOODBURY, N. J., 10th mo. 20th, 1851.

I have used upward of 1000 bushels of WM. MYERS' ANIMAL MANURE, on corn, potatoes, turnips, melons, and some other crops during the present season, and am satisfied that it is an economical and powerful manure, for turnips, radishes, and other root crops—my experience has shown it to be especially valuable.

DAVID J. GRISCOM.

SPRING FIELD FARM, Cecil County, Md.

Mr. Wm. Myers—Dear Sir—I manured with your Chemico-Animal

caps and short straw will not interfere in the least with the regular distribution of the seed. It is warranted to distribute the seed evenly; to sow any quantity per acre commonly sown broadcast; to not cut or break the grains; to be well made with good materials and durable with proper care.

Having sold about 400 of the above Drills the past season, all of which met with the unqualified approbation of the purchasers; and after careful and thorough experiments, which have resulted in Still Greater Improvements, we now feel warranted in saying that Moore's Patent Seed and Grain Planter improved, is superior to any other machine for the purpose, now in the market.

Having made arrangements to furnish 1000 of the above Machines for sale the coming Season, we shall be prepared, at all times, to supply orders without delay.

All orders addressed to the undersigned will warrant prompt attention.

LEE, PEIRCE & LEE.

August, 1852.] Ereildown P. O., Chester Co., Pa.

mal Manure about 38 acres of the poorest land on my farm, and got half in Oats, and the balance in Corn. Although it was got in quite late, and the Season very unfavorable for the Corn crop generally, yet notwithstanding, I can say that it is decidedly the best Corn I ever raised, although I have farmed for 20 years, and have had good Corn land, and manured well, as I thought, in the old way. While my neighbors' Corn was quite yellow and leaves curled up with the drought, mine was green and growing rapidly; therefore, I consider it one of the most valuable manures I ever used, and shall take pleasure in recommending it to my neighbors and others.

Yours respectfully, E. M. SEELY.

SIDLE'S HUB, AUGUR AND BOX REGULATOR.

THE subscriber residing in Dillsburg, York county, Pennsylvania, has invented a new and improved Augur for the boring of hubs, and setting the boxes of wagon, carriage and other vehicle wheels for which I have obtained letters patent.

The Augur will bore both ends of the hub at the same time, or either separately—and is the most useful and important invention of the age for inserting wagon boxes and the only Machine in existence by which they can be inserted exactly true—and is so perfectly simple in its construction, and constructed on such just mechanical principles, that it cannot possibly get out of repair.

With this Augur a set of boxes can be inserted in a few minutes—where under the old system it requires hours to perform the same amount of work.

Persons wishing to purchase Territory or Shop rights will please address the subscriber, who will sell on terms that will enable the purchaser to make money.

DILLSBURG, April, 1852—tf

HENRY SIDLE.

PENNSYLVANIA FARM JOURNAL

VOL. 2. WEST CHESTER, PA., NOVEMBER, 1852. NO. 8.

THE FARM JOURNAL.

A. M. SPANGLER, EDITOR.

Agents.

THE FARM JOURNAL may be had at the following places:—

W. B. ZIEBER, South 3d St., principal agent for Philadelphia.

W. H. SPANGLER,	Lancaster, Pa.
B. F. SPANGLER,	Columbia, Pa.
GEO. BERGNER,	Harrisburg, Pa.
H. MINER,	Pittsburg, Pa.
J. R. SHRYOCK,	Chambersburg, Pa.
H. M. RAWLINS,	Carlisle, Pa.
A. L. WARFIELD,	York Pa.

Wm. DOMER, of Altoona, Blair County, is our authorized agent for Blair and Centre Counties.

A. E. BRADY, Cumberland and Perry Counties.
S. PRESTON, Kennet Square, for Chester and Delaware Counties.

JONATHAN DORWART, Lancaster County.
And of Booksellers generally.

AGENTS FOR THE JOURNAL.

We are desirous of securing one or more competent agents in every county in Pennsylvania, to canvass for the *Farm Journal*. Our terms are liberal, and we are assured by well-informed friends in every portion of the State, that competent and active agents could not fail to succeed well. We therefore invite persons desirous of taking agencies to address us (*post paid*) on the subject; furnishing us with satisfactory reference, and stating in what particular county they are desirous of canvassing.

To prevent mistakes in consequence of the change noticed in the following articles, communications, advertisements and letters to the Editor, will be addressed post paid to the

"Editor of the Farm Journal,
West Chester, Pa."

And all letters on business of the Journal, subscriptions and money transactions, will be addressed post paid to

"Bowen, Meredith & Co.,
West Chester, Pa."

CHANGE OF LOCATION OF FARM JOURNAL.

It will be seen that the office of publication of the *Farm Journal* has been changed, and that for the future, it will be located at West Chester. A variety of inducements have led to this change, prominent amongst which, are, assurances of increased strength in our Editorial, as well as in our contributor's department. When it was first proposed to publish the *Farm Journal*, it was never contemplated that the present editor should be connected with it editorially, to a greater extent than attention to the business department would require. Circumstances however, demanded a new arrangement. Immediately after the State Fair at Harrisburg last fall, Professor Haldeman, who up to that time had discharged the duties of Editor in chief, was called to one of the Southern States, where he remained until July of the present year. His absence and the great distance between his place of residence and the office of publication, at once deprived us of his valuable services. His name has continued at the head of our columns under the hope that he would return and resume the editorship. In the mean time, necessity compelled me very unwillingly to take the entire charge of the Journal, and for the last twelve months it has been under my editorial control only. It is therefore due Prof. Haldeman to state, that whatever may have been the faults of the Journal during that time, he is not responsible for them.

The rapid increase of our subscription list, and the consequently multiplied business relations of the office, have compelled me to secure additional assistance, which could be done profitably, only by changing the place of publication. And now that the change has been made, the fond hope is indulged that with increased strength in the several editorial departments, and assurances that a larger number of able contributors, will lend their valuable aid to our columns, the Journal will be a more welcome visitor than ever to our many readers.

A. M. SPANGLER.

STATE FAIR.

The second annual Exhibition of the State Agricultural Society, took place as announced, on the 20th, 21st, and 22d ult., and may be considered as eminently successful. Full reports of the several Committees will be found in our columns. The number of visitors was estimated at from 50, to 60,000, and the amount of money received for membership and admission, was over \$9,000. The amount received last year at Harrisburg, was about 4,500. The question as to the prosperous continuance of the State Society, and the annual recurrence of the State Fairs, may now be considered as settled. After all expenses are paid, there must be a large surplus remaining to be appropriated to a large increase of the number and amount of premiums, by another season, and extending the field of competition. With the entire success, both north and south of us, of these State Fairs, and with the interest recently manifested at Lancaster, the projectors of the State Society may congratulate themselves on what they have already accomplished and on the prospects for the future. We have in Pennsylvania the material for making our exhibitions equal to any in the Union. It only wants *development*. Meagre as the recent one was in several departments, we yet regard it fully satisfactory as a trial of strength, and showing what may be done hereafter. Some of our counties showed the great progress already made in an improved and enlightened system of farming, others in an equal degree, showed the want of improvement in their stock, implements, and productions. It is almost incredible, the distance between these two extremes, even in Pennsylvania.

We have not space to particularize many of the contributions well worthy of notice; but must refer to the official reports. In neat cattle, we were greatly disappointed. But very few were on the ground, not so many as at some of the county exhibitions, and had it not been for Philadelphia and Chester counties, who forwarded some of their best stock, this department would have been a burlesque. Of oxen and fat cattle, Lancaster county, large, populous, and fertile as she is, contributed two yoke, and one fat steer. As an exception to this indifference on the part of her farmers, we would refer to Isaac Landis, who showed six excellent Durham Steers of large size, and H. McIntyre several fine animals of this breed. His bull and cow both evinced high breeding, and had some good points. Gen. Cadwalader, of Philadelphia county, however, carried off the palm in Durhams, having over twenty head, several of them imported and of great beauty, and comprising some of the best blood now in the country; a very fine cow of this breed was also exhibited by Samuel Cooper, of Philadelphia county. Jas. Gowen's superior Durham Bull, "Rockland" was also on the ground, and re-

ceived the first premium. The display of sheep, though not large, was good. The pure Southdown, and Cotswolds of Messrs. Worth, Clement, Hood, Cadwalader and Herr, were deservedly admired. The swine, also, had but few representatives, and mostly from a distance. A very little exertion in Lancaster county would have brought out a fine display in this department, and there was no excuse for the deficiency. Professor Wilkinson, of Mount Airy, exhibited his celebrated Duchess sow, "Old Pink," who carried off the prize, as she has done in several other States. We should have mentioned in place, that there were on the ground a few, and a very few good Ayrshires, Alderneys and Devons. L. H. Twaddle, of Philadelphia, had some very fine Alderney heifers, and there was, also, a very fine bull of this breed exhibited by Aaron Clement. The Horses were in considerable number, but chiefly for draught, for the excellence of which the country is somewhat celebrated. The most extensive display of live stock was that of the poultry. The number was not only large, but they were very fine. There were Shanghaes and Cochins, white and speckled Dorkings, Game Fowls, Bantams, Chittagongs, Bremen and China Geese, Muscovy and other Ducks, Golden Pheasants, Fancy Pigeons, &c., affording an excellent opportunity of comparison. Some sales were made at high prices.

The show of implements was large and excellent, and included some 10 or 12 wheat drills, various patterns of hay, straw, and fodder cutters, horse powers, grain fans, sausage cutters, cultivators, a great variety of ploughs, combining some important improvements, and corn shellers, one of these latter, a recently patented machine, came on the ground too late for competition, but was rather novel in construction, and intended to be worked by a one horse power. The owner informed us it had shelled and was warranted to shell 80 bushels of corn per hour. We hope to have an engraving and description for another number of the Journal. The corn is intended to be thrown into a hopper by a shovel or wheelbarrow load at a time, instead of a single ear or two, as is the common method. In case of a sudden rise in grain, as was the case a few years ago, when it was wanted for export, such a machine would have quite an effect on the market, and would be very valuable. We should like to particularize many other implements, but are compelled to be short for want of space.

In the other departments of the exhibition, flowers, fruit, vegetables, dairy products, articles of domestic manufacture and fine arts, samples of grain, &c., there were very great deficiencies as to number, and inexcusably so. We cannot account for this except that the premiums to be awarded were not considered sufficient to pay for damage, trouble and expense of a long journey. We saw one firkin

of butter which had been detained on the road, and arrived too late. It was from Susquehanna county, and the actual cost of transportation was over \$8, more than the highest premium offered for less than ten firkins. So far, much commendable public spirit has been evinced from all sections of the State, in bringing on contributions to both the fairs, more for the credit of the State, and to sustain the great enterprise, than for any prospect of remuneration. Hereafter, we hope the means of the Society will allow of greatly augmenting the number and amount of premiums, so as to approximate those in other States. Liberal premiums will bring out our strength and stimulate competition. In respect to the arrangements, we have a few words to say. Some very decided improvements, and additional accommodations for contributors were made over those at Harrisburg, which gave great satisfaction; particularly the transportation of articles to and from the grounds at the expense of the Society. This very difficult duty was devolved on Sheriff Hurtman, who performed it in the best manner, so as to accommodate all. A very large portion of the stock, &c., arriving at Lancaster at the same time, occasioned some hurry and delay, but we heard of no accidents, either going to or returning from the grounds. The canal commissioners are also entitled to the thanks of the Society for the accommodations they rendered on the road, and in the arrival and departure of the cars.

As regards the arrangements on the ground, new as such immense gatherings are in our State, it could hardly be expected that they should be entirely complete, and free from all objection. Some discrepancies occurred in the classification of articles for the appropriate committees, some of the unenumerated articles were overlooked, but whatever confusion and mistakes occurred, we thought could very readily have been obviated or removed, by the presence of a Marshal and his aids, distinguished by appropriate badges, who might have been on horseback, and had the general superintendence. Members of the different committees were constantly appealed to by strangers or contributors for information, about which they knew nothing. Neither the officers of the society, nor executive committee could be distinguished from the crowd. The only badges were those of the Judges and Police. In the Floral Hall and Tent appropriated to Fancy articles, much damage was done, and irreparably to many articles, by the dust. This might have been prevented by the ground either being floored over, or slightly watered every morning; indeed a water cart over the whole grounds before the influx of visitors, would have been a good thing.

On the whole the Exhibition passed off well and with the experience of two years, it may fairly be anticipated that the next annual display will surpass the two first. A difference of opinion exists whether after having located the State exhibition, for a few

times in various parts of the State, so as to excite a general interest, it would not be best to permanently establish it at some one location. Much may be said on both sides of the question. There is no doubt that the accommodations can be rendered much more complete, and at much less annual expense, if one suitable place was selected and retained for this purpose. We look forward before long, to the establishment by the State Legislature of a model and experimental farm, under the auspices of the State society. The absolute necessity for this and the absolute duty of the Legislature to grant it, are so palpable as to induce the belief, that such tardy justice to the great pursuit of the people cannot be long deferred. If so the vicinity of the model farm, would be the place for the State exhibition.

One other matter struck us, might be provided as part of the arrangements at these fairs, and with very great advantage. A series of lectures, addresses, or meetings, each evening on subjects of interest to the thousands of farmers collected from all parts of the State. Many matters of great importance might be treated of and elucidated at such times, which would make these annual gatherings what they really ought to be, and to a great extent are, places of instruction and improvement, and affording material for thought and reflection afterwards. At the late fair in New York, on one evening there was a meeting of Pomologists, whose discussions brought out a list of Pears adapted for the quince, and embodied much practical and valuable experience. And recently at Lancaster, Peter A. Brown, of Philadelphia, was prepared to give a lecture on wool, to which he has devoted much attention and enquiry for many years, and is prepared to demonstrate some facts as to the capacity of certain sections of our country for its growth. His display of over twelve hundred specimens from all parts of the world, attracted much admiration. His lecture was however defeated by all the suitable rooms having been pre-engaged. Such intellectual amusements as Ole Bull the Fiddler, the Infant Drummer, three and a half years old, (probably eighteen,) and playing over one hundred notes, and the fat girl, weighing five hundred and twelve pounds, seemed to be in the ascendency, and attracted crowded levees, perhaps because these other attractions were wanting.

POMOLOGY.

We hope, in future numbers of the Journal, to devote more space to this department, than it has hitherto received; and as a commencement, our readers will find in another column, for the first time, the list of fruits adopted for general cultivation by the American Pomological Society, at its first session in New York. We also give in the present number, engravings of two of our native fruits, of the highest excellence, for drawings

and description of which, we are indebted to our friends—David Townsend and Dr. J. K. Eshelman of this county. In our next number, we shall also, give the result of the Pomological discussion at its recent meeting in Philadelphia, which will give some addition to the former list. For the information of some of our readers, we may mention, that by the decision of the Congress, all fruits are divided into three classes, designated by the terms, "good, very good, best." A fruit not coming under either of these, is regarded as unworthy of cultivation; while the adopted list contains nothing unworthy of cultivation, anywhere, so far as ascertained, and is well deserving the attention of Fruit Growers. It is no less true, that there are many of our native fruits, which have been *proved* to be highly valuable in Pennsylvania as regards flavor, productiveness and other good qualities, which were not placed on this list, but only recommended for trial. As has been well remarked by one of our correspondents, there are people in this State "who can distinguish a good fruit from a persimmon." There is no doubt of this fact, and, although our Eastern friends, may be unwilling to have recommended for general cultivation by the Congress, till they fruited them some years hence, such choice varieties, as the Jefferis, and Smokehouse Apples; Diller, Brandywine, and Ort Pears, &c. We have no hesitation in urging these at once, as exactly suitable to our section of the Union. There can be no difference of opinion as to their superior quality, and if the lists of the Congress are to be of influence in determining the choice of varieties, it is right that we should avail ourselves, in addition, of such of our own seedlings as have been proved and tried, here. Climate and soil have much influence on fruit, and many varieties of fine quality in some sections, are indifferent elsewhere. If the Jefferis apple had originated in New England, it would by this time have had a world wide reputation. We consider it second to no other apple known.

The importance of bringing before the public our Pennsylvania seedling fruits, which we believe are fully equal to any now known in the Union, has been for some time past, felt to be a great desideratum, and we are pleased to be able to say that at the recent State Fair, a meeting of Pomologists for various sections of the State, was held in the Floral Hall, at which it was determined to establish a State Pomological Society. The first meeting, of which notice will appear in our next number, to be held the coming winter at Harrisburg, at the same time as the State Agricultural Society.

We shall be pleased to receive from any of our readers, specimens of such fine seedlings as may be found in their neighborhoods to be engraved for the Farm Journal.

The processes of the manufacture of Butter and Cheese, of some of the contributors in this department, at the late State Fair, shall appear in our next.

To Correspondents,

All communications having reference to the Farm Journal, must for the future be addressed "to the Editor of the Farm Journal," West Chester, Pa. The residence of the editor, A. M. Spangler, is still in Lancaster, where those having private business with him, are requested to direct their communications. Business communications relating to the financial concerns of the paper, must be addressed post paid to Bowen, Meredith & Co., West Chester, Pa.

We shall be much obliged if our correspondents will forward their contributions for the next No. of the Farm Journal immediately. The delay in the present issue may, also, prevent the issue of the next number exactly on the 1st prox., but it is the intention of the present publishers to be more punctual in this respect than has hitherto been the case. We hope our friends in all parts of the country, will give us their assistance in writing out for the Journal such results of their own experience and practice, or that of their neighborhoods, as may have fallen under their observation. Agriculture, in its comprehensive sense, embraces a wide field of investigation and experiment. In one or more of its varied departments it would seem occasionally to come within the range of thought, and attract the attention of all classes of the community. The citizen, confined to his small grass plot, and his narrow flower border, his grape vine trellis and perhaps his two or three shade trees, as well as the practical farmer with his broad acres. From one and all, the scientific, no less than the practical experimenter, we invite contributions and aid to make the only strictly agricultural paper in the State, what it *ought* to be.

Several communications, crowded out by the State Exhibition reports, shall appear in our next.

Labels for Fruit Trees.

We have found the following receipt, taken from an English work, to make an indelible Ink, for writing on Zinc, and one not affected by the weather: Cut up the common sheet zinc into strips about half inch wide by 2 or 3 inches long, and write with a quill pen. The zinc should previously be made bright. Through a hole at one end introduce a thin copper wire, long enough to encircle a branch or limb, and it will remain for years, giving to the owner of a newly planted orchard the satisfaction of knowing, at all times, his varieties. Care in respect to labels would obviate much of the confusion in all parts of the country, as to correct nomenclature. "Take 1 drachm of Verdegris, 1 drachm sal ammonia powder, and half a drachm of Lamp Black, and mix with 10 drachms of water." Shake before using.

We shall be obliged if the Secretaries of the different County Agricultural Societies, or some of our other Friends, will forward us accounts of the different exhibitions for publication.

In introducing as a new feature into the Farm Journal, monthly notices of the business operations of the Flower and Vegetable Garden, Fruit Orchard, and, perhaps, in future numbers, of the Farm, we may remark that the recommendations will be condensed from practical observation and experience of some years past. *Method, system, the habit* of doing every thing in its right time, and in a proper manner, is one of the great secrets of success in all business, but is most especially required, in all that relates to the productions of the soil. Crops of all kinds must be planted and gathered in their proper season. Manures must be applied, the want of them anticipated by timely preparation. Every week, and almost every day, has its peculiar duties to be performed at a certain time, or not at all; and on which success or failure depends. What is sometimes called good luck, in obtaining an extra crop, rearing a fine animal, exhibiting choice specimens of finely flavored fruit, &c., is nothing more than the *timely* attention, to often very small matters, and the enlightened practice, which science applied to agriculture, has brought about. To many of our readers, of course, these monthly hints will merely serve to remind them of work to be performed in proper course, without, perhaps, giving any new suggestions. Our aim will be to give simple practical details, rather than speculation, often both useless and expensive. We shall, however, hope to keep the readers of the Farm Journal fully posted up with respect to all the improvements and discoveries, with which the Progress of the age, and scientific research has illustrated, operations in the soil, no less than other branches of industry. Science applied to agriculture, is no longer mere visionary speculation. She can point to *results*. Men may still plough and sow and reap, and perhaps in the same style as was done some centuries ago, but they will fall behind their fellows, and be left alone by the still progressive march of improvement and discovery, unless they are willing to read, examine and be convinced. Agricultural chemistry has opened to the farmer a knowledge of the secret influences which affect his daily operations,—that his crops must be adapted to the nature of the elements contained in his soil, or a specific food supplied for the occasion. Analyses have been made by competent chemists of almost every kind of crops. New manures have been and are being brought to light. New principles have been applied, and new modes of culture, new plants, fruits, and vegetables in our own and foreign countries have been discovered; highly improved and simplified machinery has been introduced, all which, to some extent, the intelligent farmer must become familiar with, if he expects to succeed in his vocation, amid the competition which surrounds him. Agricultural Periodicals, as the medium of intelligence of the practice of other districts than his own, and of improved cultivation, are absolutely required by the

times, and the rapid increase in their number, and extent of circulation, is evidence of this fact being appreciated.

Calystegia Pubescens.

We confess to having some strong suspicions that this "most charming Chinese Climber" is going to be rather a dangerous acquaintance. It belongs to the natural family, Convolvulacea, and was classed by Linnaeus and others of the earlier Botanists as Convolvulus, and it resembles very much in appearance and habit, except the double blossom, that exceedingly great pest of English farmers, and here, wherever it is known, the Convolvulus Arvensis. We have had our own troubles with this, and can hardly extirpate it by repeated hoeings, and consider it one of the greatest nuisances to be met with. Every piece of root, however small, seems to make a plant, from its joint, and from our observation of the Calystegia, it propagates quite as easily, and we fear will be as difficult to get rid of. We have known of a single strong plant, left out over winter, to throw up at least 500 fine young plants the next season, without any solicitation or stimulus. There is a difference of opinion whether it is pretty, and to those who think so, we would recommend only to grow it in a large pot, or a box, and when they become tired of it, by no means to empty the contents on to the border, but remove them carefully to a vacant spot, and surround it with a large quantity of dry brush. The brush should be *quite dry*. The application of a Lucifer Match, and a wisp of straw, will soon remove all danger from Calystegia Pubescens, the "charming Chinese Climber."

FRUIT ORCHARD.

Scrape the loose bark off old trees, and apply to trunk and forks of limbs, with a white wash brush, soft soap and lye, in equal parts. This will destroy any parasitical Fungi, and break up the winter quarters of insects. The bark of trees thus treated, becomes smooth and pliable, and we have known greatly increased productiveness to follow. Spade in around the roots, well rotted manure. This is especially necessary for Dwarf Pear Trees. Apply leached ashes freely over the surface. Plant out Gooseberry and Currant bushes, Raspberries and Blackberries. Dress up and weed out old Strawberry beds, and mulch two or three inches deep with spent tan, or leaves from the woods. Young orchards may be planted out this month. Select, if possible, high ground, with northern exposures; a preceding crop of potatoes is a good preparation of the soil for young trees. Let the *first* step be to enclose with a substantial fence, the ground required for the orchard, and then procure one of Downing's, Thomas', or Barry's Fruit Books, for directions for planting, proper distances, and after culture. These, if attended to, will repay in a single season ten times their cost. Fall planted trees should be securely staked. Sometimes a mound of earth thrown up around the stems to the height of twelve to fifteen inches, to be removed in the spring, will be a good substitute for the stakes, and also is valuable in warding off the attacks of mice.

lay down and protect with a few inches of earth. tender raspberries, grape vines, &c. Prune away old wood of raspberries. Moderate fall pruning of trees may now be done. Winter apples and pears should be gathered before severe frosts. If they are designed for keeping, of course they must be carefully hand picked, in a dry day, and without bruising, laid by in heaps for two or three weeks, when they should be again handled, carefully sorted, and placed in barrels in a dry, cool cellar or fruit room. A fruit picker, Orchardist's Hook and Ladder, to be obtained at any of the Agricultural Warehouses, are indispensable. With these, the finest fruit, generally at the extremities of the limbs, may be safely reached.

Original Communications.

For the Farm Journal.

Transmutation of Plants.

We perceive, by Hovey's *Magazine of Horticulture* for September, that the editor has been stirring up the old thread-bare topic of the *transmutation of plants*; and, although he professes a former want of faith in that doctrine, he seems now inclined to think the process has been demonstrated by Mons. FABRE, a French experimental Agriculturist. The *belief* in transmutation is certainly very ancient, perhaps as old as that in *transubstantiation*; and if we may confide in the *evidence* furnished by popular tradition, and which is still pertinaciously urged by many cultivators of the soil, the doctrine was fully established long before Mons. FABRE was born. We know that so long ago as the middle of the last century, this *belief* was so prevalent in Europe, that it was deemed expedient, by the great Swedish Naturalist, to demonstrate its fallacy by an elaborate argument,—which was published, under his auspices, in the 5th volume of the *Amoenitates Academicæ*.^{*} But, of what avail is it, to expose the fallacy of such *notions* to those who are *determined* to cherish them?

"He that's convinced against his will,
Is of the same opinion still."

The *belief* continues to find comfortable quarters in the minds of scores, and hundreds, of our Agricultural fellow citizens,—while it laughs to scorn all the *arguments*, drawn from structural Botany, that can be directed against it. The advocates of the notion deal altogether in assertions, and a sort of second-hand facts; by which the question is conclusively *settled*, with *them*. They have all seen, or heard of, fields sown with *Wheat*, which produced little else than *cheat*, when the harvest came round; and they very confidently ask, what better *proof*, of conversion, can be required. Mr. HOVEY tells us, "intelligent cultivators, and men of veracity, have affirmed that such changes have taken place, and have offered to furnish specimens of the *transmutation*." So we have often *read*, before; but we never yet *saw*, nor could find, the person that would "furnish specimens." The "*specimens*" are the very things we want to see.

If, as Mr. HOVEY says, Mons. FABRE "demonstrates, beyond all further question, that *Wheat* is itself a transmutation of a kind of wild grass," it is to be hoped he will let the *demonstration* do its perfect work, by furnishing us with "*specimens*" in all the *stages of transmutation*. As it required *seven successive crops* to complete the metamorphosis, we would like to have *specimens* in its *aboriginal state* of "wild grass,"—and also in the modified condition of *each successive year*, as it went on approximating to *genuine Wheat*. These would afford very interesting *evidence* in the case; and as it can no doubt be read-

ily furnished by Mons. FABRE, we shall eagerly expect its arrival, through Mr. HOVEY,—pledging our grateful acknowledgments, when it does come, through the *Farm Journal*.

It appears from the account of this remarkable phenomenon, that the "wild grass" so successfully operated upon by Mons. FABRE, is one to which *Linnaeus* gave the generic name of *Aegilops*,—well known to the *Botanists* of Southern Europe. The plant is somewhat allied to *Triticum*, or *Wheat*,—and one of the *species* was actually referred to *Triticum*, by *Beauvois*. The one in question seems to be a variety of *Aegilops ovata*, L. and has been called *triticeoides*, from its resemblance to *Wheat*.

Travelers, in former times, used to report, that *Wheat* grew spontaneously in *Sicily*. It is now known that they had reference to the *Aegilops ovata*, which is abundant throughout that Island; and its grain so much resembles that of *wheat*, that an ancient Botanist (*Cæsalpinus, fide Dr. Theis*) named it *Triticum sylvestris*. When ripe, this grass is gathered by the *Sicilian Peasantry*, who tie the heads up in bunches, and set them on fire; they burn with rapidity, and so give the grains a slight roasting, which are thus considered agreeable food. Thus much of the plant, in its *wild state*. Now, every body knows that long and skillful culture will improve the *size and quality* of all vegetable products,—and of course the grain of *Aegilops* may be so improved: But, we think it yet remains to be shown that culture can essentially change either the *generic* or the *specific character* of Plants; and until Mons. FABRE shall establish the allegation by *authentic specimens, showing the transmutation*, we must believe—for all analogy, and all our observations compel us to believe—that his *new-made Wheat* is nothing else than *real Aegilops*,—modified or improved, it may be, and probably is, by seven years of careful cultivation,—but still *Aegilops*.
West Chester, Oct. 27, 1852. D.

* The worthy disciples of this doctrine, in the "good old times," not only believed (with their followers of the present day,) that *wheat* would turn to *cheat*; but they contended that it would often turn a whole series of *somersetts*: going off first into *Rye*, then from *Rye* into *Barley*; from *Barley* into *Lolium* or *Darnel*; from *Lolium* into *Bromus*, or *Cheat*; and from *Cheat* into *Oats*. They even thought these vagaries could be *inverted*, by a good soil; and that, with skillful management, the erratic plant might be made to retrograde toward its pristine state, at least as far back as *Rye*!

For the Farm Journal.

Theory of the Action of Lime used in Agriculture.

A great amount of matter has lately been written and published, to show that Mr. James Gowen, in his Address before the Lancaster County Agricultural Society, has been guilty of uttering false doctrines in relation to the use of lime as a fertilizer. And also in respect to what he should have said, in regard to ploughing in green crops.

The most unaccountable part of this discussion is that not one of these critics has offered the reader any theory of his own, or any reasoning in support of his position, other than the naked fact, of lime having to his mind proved beneficial in a single instance. Not one of these gentlemen has disclosed the manner of application, or the attending circumstances.

If I may be allowed to enter the list, without pledging myself *wholly* to sustain Mr. Gowen's position, I will offer some suggestions, which I think will go to show, that in the main he is correct.

First, as to the Lime: Let us inquire what Mr. Gowen said in regard to it? He says: "I hold it not to be a manure, in the common acceptance of the term." If Mr. Gowen excludes caustic lime from the list of manures, because it only acts in a secondary manner, and does not to any extent become incorporated with the produce, I am willing to agree with him. But as regards carbonate of lime, this distinction will not hold good. By reference to his address it can easily be seen, that he only speaks of caustic lime. Some of the advocates of the indiscriminate use of lime have taken exception to this expression of Mr. Gowen. But after all, the word manure is but a name, and no very great disadvantage to the farming community can ensue from calling it by any other name, provided he allows it to enjoy its proper place among those things which are useful to husbandry.

Mr. Gowen proceeds and says: "And that its too frequent application upon a large portion of your land, the heavy loam and clay lands, is not only destructive of the real manure applied to those soils, but to the inherent organic fertility found in them." Is this latter in substance correct?

Allowing the chemistry of Agriculture to be as yet in its infancy, and many of its phenomena not perfectly understood: still we may confidently look to that science for a solution of this question.

The vegetable kingdom is composed of a very few elements, comparatively speaking, but each of these, with very few exceptions, is "a sine qua non." And as to those few cases where substitution is alleged to have been effected, they are not well authenticated.

In the progress of the science many theories have been advanced, as to the sources from which these several elementary constituents are derived. The theory that I have adopted, (not my own,) as to the manner in which humus is instrumental in the growth of plants, has direct relation to the part taken in the same work by lime. In using the term humus, I wish to be understood as referring to woody fibre undergoing *eremacausis*. Woody fibre consists of carbon and oxygen and hydrogen in the proportion to form water. By the absorption of oxygen from the atmosphere, the vegetable matter in the soil undergoes a slow decay, and in this way is a constant source for the supply of carbonic acid. This acid has the power of rendering the mineral requisites of the plants more soluble in water, whereby they are more easily taken into the circulation. This office performed, the acid in turn becomes the subject of decomposition, and furnishes carbon to the plant. This latter is more particularly the case before the plant is supplied with leaves.

The process of decay is much retarded by the presence of any uncombined acid, hence the acids are called antiseptics.

The presence of the alkalis activates vegetable decay, and this is more especially the case with lime. I will not, at present, go into the complicated theory in relation to the acids retarding *eremacausis*, but will endeavor to explain my view of the action of lime in activating decay. We have seen that woody fibre is composed of carbon, and hydrogen and oxygen in the proportions to form water. Caustic lime has a powerful affinity for the acids, and although carbonic acid is the lowest in the scale, and will be displaced by almost any other acid, yet when placed in contact with moist woody fibre in the presence of the oxygen of the air, the vegetable matter being dead, or deprived of its vitality; and the temperature being sufficiently elevated, yields to the decomposing power of the lime, and new compounds are formed; the

carbon and the oxygen of the woody fibre form carbonic acid, which immediately combines with the lime, and the hydrogen of the woody fibre combines with the oxygen of the atmosphere and water is formed.

The presence of carbonate of lime in the soil is also indirectly favorable to decay. The roots of the plants cultivated, and those of the weeds, as well as all other vegetable matter ploughed under the surface, are susceptible of fermentation as well as *eremacausis*, and considerable quantity of acid of different varieties is thus generated. The carbonate of lime is decomposed by these acids, and consequently they are hindered from exerting their antiseptic qualities, and during the process of saturation with these vegetable acids, much carbonic acid is liberated, and being taken into the circulation subserves the same purpose as that evolved by the humus.

What do we learn from the above. First that lime applied in its caustic state to the soil, must be supplied with an acid from some source. That when applied in doses above the amount necessary to saturate the vegetable acids in the soil, that it will prey upon the humus for its supply, and that to the damage of the growing crop.

Second that carbonate of lime will equally well neutralize the acids found in the soil, and that in so doing, instead of consuming the humus, will come to its aid in furnishing carbonic acid to the growing crop.

If this is the case, well may Mr. James Gowen call it a wasteful cook—when applied in "over doses."

In the section of country in which I reside it is much practised to plough in lime in its caustic state with the manure. I have remonstrated with the advocates of this process in vain. I am always met by their experience of this method giving a good crop of grain.

In this section the grain is very subject to being thrown out by the winter, and a good start in the fall is of infinite benefit to the crop. By the process above described, the ammonia is brought into immediate action, and the roots are enabled to run deeper into the soil than they otherwise would. This same effect can be produced by the application of fertilizers containing ammonia, and at a much cheaper rate, than to be subjected to carbonating fifty bushels of lime to the acre at the expense of the manure.

But we are told by Mr. William Staveland of Bucks county, and others, that they have received great benefit from lime. Mr. Staveland in particular says his was limestone land, and worn out by cropping. I presume his land is supported by limestone rock and not formed from disintegrated rock. Much land that lies on limestone rock does not, after severe cropping, contain sufficient lime. This is nothing new.

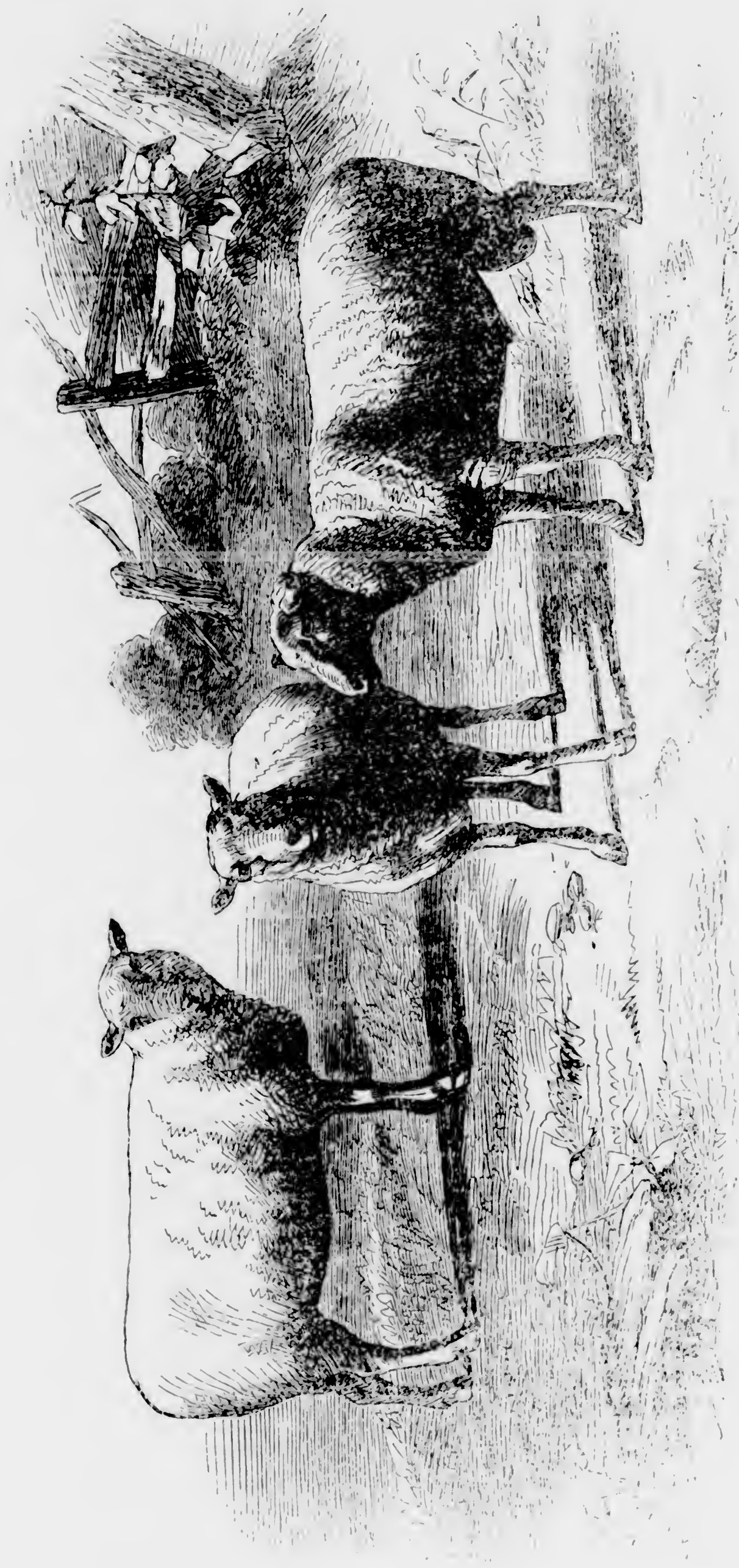
But I do not understand Mr. Gowen to repudiate lime altogether, but only to speak against over-dressing of quick lime. He does not warn the farmer against carbonate of lime.

I have come to the conclusion that it is best to let the lime lay on the surface one year before ploughing in, and that if thus prepared, or allowed to obtain its acid from the atmosphere the land will bear any dose without danger. I have said one year because all the lime now in use contains magnesia, which is longer being saturated by the atmosphere. If any plan could be devised by which the limestone could be pulverized in a cheaper manner, than by burning and slaking, it would be a very great improvement.

I will take another opportunity of speaking of the ploughing in of green crops.

G. BLIGHT BROWNE.

Gwynedd.



Pure Southdown Sheep—bred and owned by John Worth and Joseph Cope, Marshaton P. O., Chester Co., Pa.

SOUTHDOWN SHEEP.

The Engravings of Sheep in our present number are from daguerreotype portraits of pure Southdowns, bred and owned by Joseph Cope and John Worth, of this county. The excellence of this breed of Sheep, for hardiness, compact form, easy feeding, as well as the very superior quality of their mutton, is now generally admitted, and we are pleased to be able to say that there is no flock of Downs in the country, more pure in blood, and which evince more care and skill in breeding, than the flocks from which these portraits are taken. The Buck figured in the engraving, has since been sold to go to New York. They have also sold some recently to go to Alabama, and at other times to various parts of the Union. Their Downs have taken several first premiums at our own and the Maryland State Fairs, this season, as well as in previous years, and we can recommend them with confidence, knowing that they have been obtained from reliable sources, and their high character confirmed by judicious crosses, both here and from the flocks of Grantham and Ellman in Great Britain, which were visited by Joseph Cope himself, for this purpose. Those in our engraving are only yearlings, but already develop some of the good points of this valuable breed. The artist, however, has omitted the black faces and legs of the original, which are characteristic of Southdowns. We hope the daguerreotype process may become general, where it is desired to obtain a real likeness of an animal without flattery. Where there is no truthfulness to nature, there can be no advantage ultimately to either breeder or purchaser. The object ought to be to show the true form, the good or bad points of the animal; not to make a pretty picture for children. We have observed expensive engravings in the best style of the art, in some of our periodicals, certainly unlike anything in nature that we ever saw either here or in England. The farmer and the breeder will only appreciate these pictures, when they are true to nature, and consider nothing beautiful that is unnatural.

There are very few artists, however skillful delineators they may be generally, who have sufficient familiarity with the striking points of good stock, as to be able to properly sketch an animal portrait. The late J. A. Woodside was without a rival in this line. His likenesses display the hand of a master, and were so true to nature, as to be recognized at once. The living subject, whether of horse, dog, cow, birds, &c., seemed before you. We have heard an anecdote of his being engaged to draw the portrait of a fine cow, and after it was finished the owner, anxious to make her appear perfect, complained of his having given her a cross look, and rather a fierce eye, observing that she was the most gentle creature in the world, not at all vicious. "Why, then," it was replied, did you carry a stick whenever you went near her?" Wood-

side, ignorant entirely of her disposition, had given the real expression of her countenance.

We hope to enrich each number of the Farm Journal with daguerreotype portraits of the good stock of our own and other counties through the State, and shall commence, if possible, in our next number, with some of the fine Durhams from the herd of Gen. Cadwalader of Philad., and as they contain some of the best blood now in the country, we promise our readers quite a treat in such admirable subjects for study. We are also promised portraits of Sheep and Cattle, from the farm of Hon. N. Ewing, Fayette county, and of the superior Alderneys of L. H. Twaddell, Philad. county. Breeders of fine stock, who may wish to avail themselves of this method of introducing them before our many readers, will address us (post paid) at an early date.

The publishers of the Farm Journal wish to apologize for the late issue, by saying that from some entirely unaccountable neglect in Lancaster, the type and materials have been sent by parcel post, no one part complete. Even now, (17th inst.,) they have not all arrived. For the future there will be more punctuality.

Original Communications.

For the Farm Journal.

State Fair.

MR. EDITOR:—This immense gathering of farmers and others is now dispersed, each contemplating with pleasure his successful efforts to promote its objects, or with regret his apathy and indifference.

Will you accept the remarks of a correspondent in connection with regular reports? If so, let us look through Floral Hall and see those richest treasures, Flowers and Fruits. Of the former, a *very few* beautiful bouquets and *artificial*, for which the contributors deserve praise, are to be seen. Why so few? Do the Lancasterians not love flowers, or love them so well as to keep them in their gardens or conservatories alone?

Evergreen trees and shrubs in pots, beautiful! They added much to the interest of this department and the contributors, Paschall Morris & Co., of West Chester, who had 120 specimens, D. Miller, of Cumberland county, and others, deserve the thanks of every member of the Society.

The collection of apples was not what might have been anticipated. D. Miller, it is true, had 106 named varieties and 20 seedlings; William Cocklin, of York county, 100 named varieties; Casper Hiller, of Lancaster county, 47 named varieties; Jonathan McWilliams, 21 varieties without names; B. Garber, a fine collection; Henry Kaufman, some of large size; S. C. Skymaker, six varieties without names, perfect and beautiful; Asahel Walker, some large and fine looking; David Eyer, Pound apples; Abraham Brenner, Orange Pippin; Rachel Taylor, Golden Pippin, of elegant appearance; and display from Perry County Agricultural Society.

The specimens of quinces, by J. B. Hart, Asahel Walker, T. W. Brown and others, would be hard to excel. Why is the Portugal quince not more cultivated? A single plate of these, uniformly smooth and perfect, was exhibited. To these, in connection with

very perfect Apple quinces, by the same contributor, were awarded the first premium.

Of pears, Mr. Summy had *probably* the greatest variety: a few only named, the rest a perfect babel. Mr. Baxter, of Philadelphia, had a good collection, a single specimen of his Duchess d'Angoulême weighing 18½ oz. J. K. Eshelman, of Chester county, exhibited 22 varieties of his own production, and 6 from the experimental grounds of Thomas Harvey, of Delaware co., some of which were new in this region, and looked very tempting. Probably, the best on exhibition was a plate of "French Butter," by Peter Bernheisel, of Dauphin county. Would it not be judicious to offer a premium for the best dozen or best four varieties, a dozen each?

Of Grapes, Mr. Baxter had 6 varieties: Mr. Summy, of Lancaster county, and Mr. Cocklin, of York county, had luscious (these I tasted) Isabellas and Catawbas. Fine looking Sweet Water and smaller paces by others. Cherries and other fruit preserved in alcohol *graced* the tables. For what purpose? To learn persons to become *spiritual* or show the size of fruit? O. Fruit preserved in sugar and jellies, there was the greatest dearth. Why so little? Certainly in three private houses while attending the Fair, I saw finer looking jelly than any on exhibition.

The Cases of Birds elicited much admiration. But S. T. Ruthvon, of Lancaster, with his entomological collection, capped the climax. Here might the Farmer, Mechanic, Florist, Arboriculturist and Housewife meet face to face their best friends and worst enemies. There might be seen the apple tree borer, (*Saperda birittata*), the peach tree borer, (*Aescheria exilis*), in their perfect state. The former is rapidly approaching us, and cultivators cannot too soon make themselves acquainted with its appearance and habits and best mode of destruction. But half of your Journal would not afford space enough to do justice to this collection. Space and time fail to write of the other novelties and *sweets* in this tent. Excuse the errors and omissions of

ONE IN THE CROWD.

For the Farm Journal.

Coccinella Borealis.



This insect belongs to a tolerably numerous Coleopterous family, *coccinellidae*, commonly termed ladybirds, and may be regarded as a benefactor to some kinds of vegetation, or those liable to be infested with *Aphides* or plant lice. The larvae as well as the perfect insects of the various species of *coccinella* feed almost exclusively upon these plant lice, upon which account they should be regarded with care, rather than wantonly destroyed. The body, (of which the above cut is not a faithful representation, the legs and the antennae being entirely too long, and the head and thorax too narrow) is of a hemispherical form, of a yellow or orange color, and having seven black spots on each wing cover, arranged in transverse rows, with four smaller spots on the thorax or chest. On being taken in the hand alive, they exude a yellow mucus, which has rather an offensive smell. Next to *coccinella multi* it is the largest species of the genus common to this region. The larvae is composed of eleven segments, to the first three of which are attached three pairs of legs. The form is

long, flattened, and tapering to rather a pointed tail (and by no means agreeable in appearance) having a rough surface, of a blackish color, with yellow spots. The transformations usually take place upon the leaves where they feed, and it is not an uncommon thing to see eggs, larvae, pupa, and the mature insect, all at one time: from which circumstance we may safely infer that there are several broods in one season. It changes to a short oval chrysalis, attached by the terminal segment or tail, in which the future perfect insect is visible, and also bears some resemblance to the larvae, especially as to color. The first transformations take place in May and June. In the winter they creep into crevices, (the females at least) under the bark of decayed wood. I have taken numbers of them in early spring, from under the bark of decaying trees. It is of importance to the farmer and the cultivator of vegetables and flowering plants to know that these insects visit plants only for the purpose of feeding upon those pests of all tender vegetation, namely, *Aphides* or plant lice. And in order that their young should have their necessary food near at hand, the provident female deposits her eggs in the midst of a colony of plant lice, and then leaves them for time to bring into life and active usefulness.

S. S. R.

For the Farm Journal.

ESTHERTON, Sept. 23rd, 1852.

MR. SPANGLER:

I send you the result of a careful experiment made with different manures, applied in different ways in planting Potatoes.

On the 19th of May, I selected 126 Mercer Potatoes, without core, as nearly the same size as possible, and weighing about three to the pound. I cut each potato lengthwise into two pieces, and planted them in my garden in sandy loam soil, in hills two and a half feet apart, three pieces in each hill, rows side by side, and attended to them from planting to raising myself.

No. 1.	Contains 12 hills.	Applied Kentish Guano, manufactured in N. York, 2 oz. to the hill. Covered the potato one inch with ground before applying the Guano, and one inch after.
No. 2.	" 12 "	Applied Saline Fertilizer manufactured in Phila., covered as No. 1.
No. 3.	" 12 "	Potatoes first rolled in Plaster, then applied 2 oz. to the hill, and covered as No. 1.
No. 4.	" 12 "	Air slacked lime, 3 oz. to hill, covered as No. 1.
No. 5.	" 12 "	Well rotted, short Barn Yard manure on the Potato, and covered 2 inches with ground.
No. 6.	" 12 "	Short Barn Yard manure under the Potato, and covered as No. 5.
No. 7.	" 12 "	Peruvian Guano, 2 oz. to the hill, covered as No. 1.

To day I raised them.

No. 1. yielded 44 lbs.

No. 2. " 69½ "

No. 3. " 42½ "

No. 4. " 41 "

Beautiful smooth skin.

Found one Rotten Potato, and think the rest will not keep over winter.

No. 5. yielded 34 lbs.

About one fifth nibbled by mice and moles, and think the seed must have been eaten by them.

Will some one of your many readers, try the experiment on Lime stone and Slate soils. I had before tried Peruvian Guano on Wheat, Corn and Oats. On the Oats there was a marked benefit, the growth being so much taller and ranker in those spots where it had been sown as to be observable at the distance of a hundred yards. On wheat and Corn I could perceive no difference.

A. O. HUSTER.

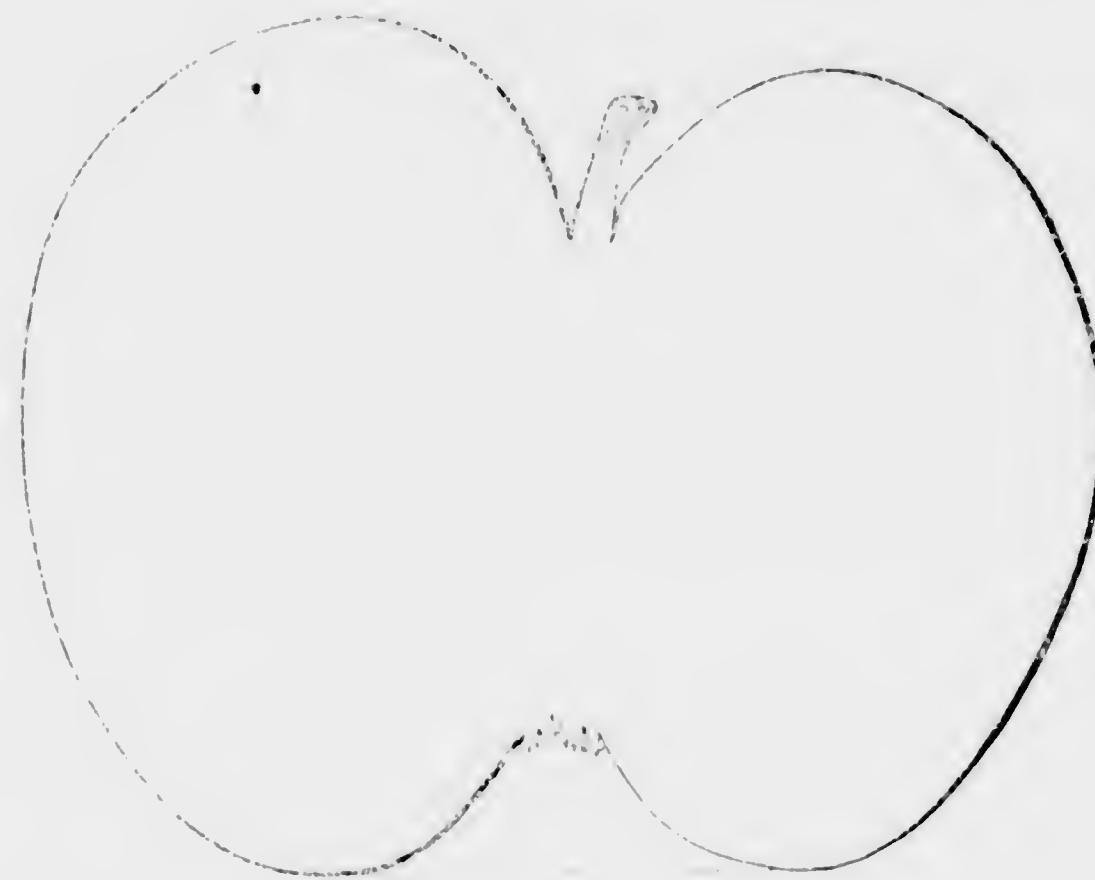
No. 6. " 41½ "

Also eaten, but not so badly as No. 5.

No. 7. " 67½ "

Even in size—smooth skin, and free from excrescences.

JEFFERIS APPLE.



For the Farm Journal.

Jeffers Apple.

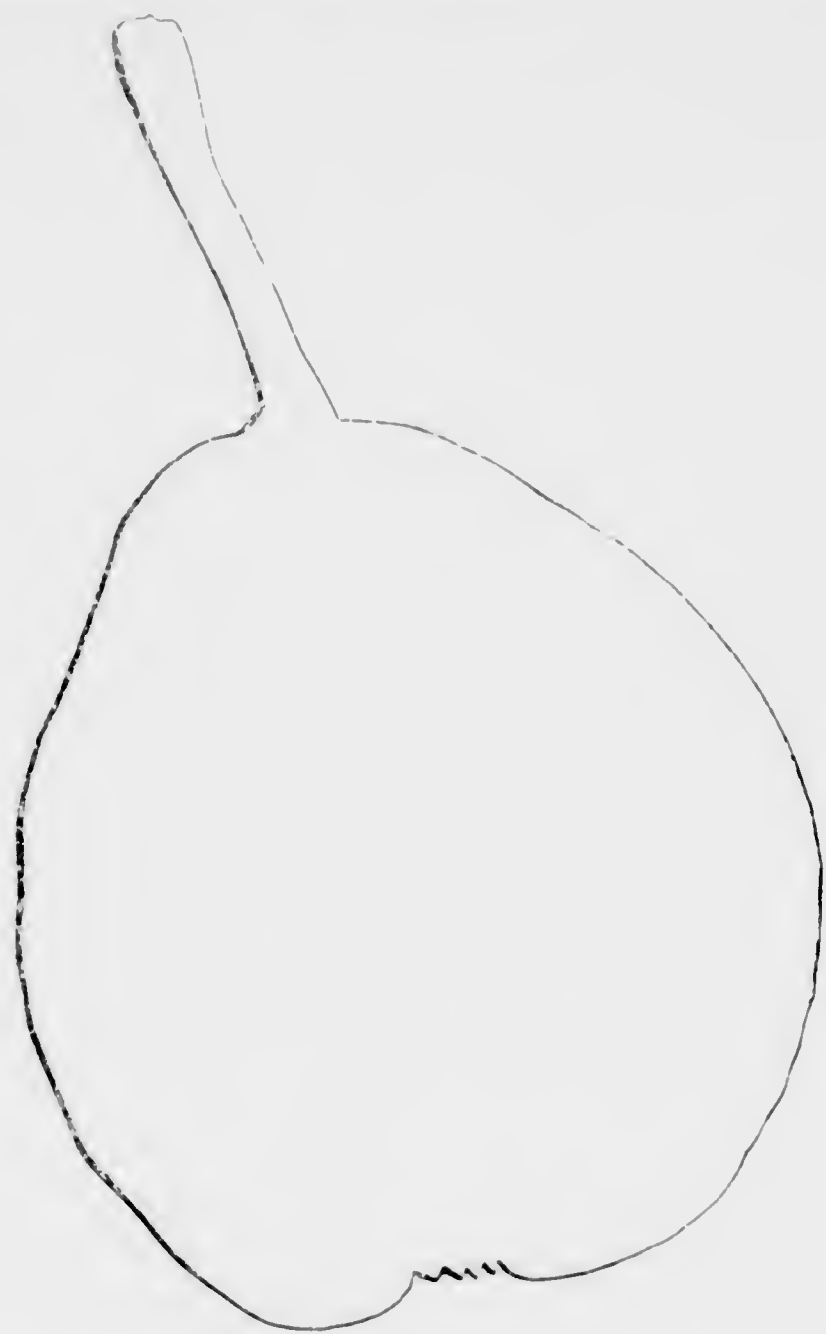
As Fruit culture is attracting the attention of Farmers and others, I hope your correspondents will from time to time, as in their power, give information of such seedling fruits as are deemed worthy of cultivation. It is believed this and the neighboring counties do furnish native fruits of as much excellency as any portion of our country, many of which are scarcely known beyond the neighborhood of their origin. This is to be regretted, particularly as the soil and climate where they originate and have proved their good qualities, are sure guarantees that in this region at least, they may be cultivated with success; and it may also be presumed that what suits this climate will succeed well in a large portion of the Union. As you have shown a liberal spirit in giving accounts and representations of Animals, Implements, &c., interesting to farmers, it is hoped you will encourage the diffusion of the knowledge, history, properties, and description of new fruits, particularly of our native seedlings of worth. Some of your subscribers believe you would render good service to the community by calling more particular attention to an excellent Apple that is known to perhaps but few, although it has been exhibited at some of the Horticultural Exhibitions in the eastern part of the State for several years. I mean the "JEFFERIS APPLE." It originated on the farm of Isaac Jeffers, in Newlin township, Chester county, Pa., and was by him exhibited to the Chester County Horticultural Society, at their Autumnal Exhibition, in 1848, and by the Committee on Seedling Fruits, named "JEFFERIS," by which name it has since been known. At the late meeting of the "American Pomological Society," the Committee on Native Fruits pronounced it "best," which, in Pomological language, means "first-rate." The following is a description of the fruit.

SHAPE, oblate-spheroidal. SKIN, in its ground color, lemon yellow, streaked and stained with red, but on the side next to the sun, deepening into rich red, dotted with white spots, and a little russet round the stalk or stem. STALK, about half an inch long, slender, inserted in a narrow, deep cavity.—CALYX, woolly, nearly closed, set in a regular, well formed, deep basin. FLESH, white, crisp, tender, melting, juicy and of exceedingly pleasant flavor. In use from the middle of August until late in October, and is an excellent fruit both for cooking and the dessert. Its superior, for the season, I have not met with. TREE, a rather moderate grower, with upright habit, and said to be a constant and abundant bearer. It can be had at some of the Chester County Nurseries.

DAVID TOWNSEND.

West Chester, Penna.

The Diller Pear.



Diller, among the very best August pears and deserves a place in every collection in this State. It is named after the person on whose property it grew and by whom it was most probably raised from seed, one hundred years since. Tradition says he brought the tree or scions from Germany; but this is extremely doubtful, because of long voyages and want of horticultural knowledge. It is more probable he brought seed of some favorite pear, planted it, and raised this tree. Its growth much resembles the Bloodgood, short jointed, wood reddish-brown, not a rapid grower but bears regularly and abundantly. Fruit of medium size, obovate irregular or one-sided, thickening abruptly into the stalk, which is an inch long and obliquely inserted. Skin, at maturity, golden yellow, sprinkled, and one side mostly covered, with light cinnamon russet. Calyx mostly open, set in a slight, smooth depression. Flesh yellowish white, buttery with rich sugary luscious flavor; a little gritty at the core, which is small. Seeds long, black and pointed.

J. K. ESHLEMAN.

Work for the Month in Flower Garden.

Orange and Lemon Trees, Pomegranates, Lagerströmias, Abutilons and such half hardy ornamental shrubs, as have been standing out should now be taken up immediately, and placed in a dry cellar. Oranges and Lemons should be placed where there is no danger of frost, and to prevent losing their leaves, should have plenty of light and a free circulation of air in open weather. Should their leaves drop, they will not flower the next season. Lift and pot at once—Geraniums, Salvias, Heliotropes, and such other plants as are tenacious of frost. If taken up with care they will reward with bloom through winter. Verbenas with good roots, if potted and placed in a warm room, where they will continue growing, will keep flowering for some time, but for this pur-

pose, it is much better that they should have been kept in pots through summer. Take up also, for blooming in parlor Mignonette, Neapolitan Violets, Sweet Alyssum, Stock Gillys and Chinese Primrose. If the ground is very dry, water well before lifting, so as to have some earth adhering to the roots. All freshly potted plants, should for a few days be kept closely shaded.

Cut down and carry away, all such plants as have been hurt by frost. As soon as Dahlia tops are killed, lift the roots, cutting off within a few inches of the ground. Dry them a short time in the sun, remove carefully, the earth which adheres, then invert them for a few days, with tops down to drain of moisture, after which they may be removed to their winter quarters, which may be on a shelf in a dry cellar, free from frost, or they may be packed in dry sand.

Lift all tender Bulbs, Tuberoses, Gladioli, Tigee flowers, Amaryllis, &c., and lay away as Dahlias in a dry place. If not already done, plant beds of Tulips and Hyacinths. Trench a piece of ground, enriching well with short manure. Plant the Bulbs nine inches apart, and three inches deep. When hard weather approaches, cover with long litter or leaves. Now is a good time to divide and replant Herbaceous plants, Peonies, &c. Put out seedling Hollyhocks where they are to bloom. Lift Carnations and Pinks which have been layered, and place in a cool frame for the winter. Water occasionally, and give fresh air in mild days. Chrysanthemums if taken up carefully and potted in large pots and well watered, may be retained in bloom for a considerable time in the house. The Lilliputian or dwarf varieties which are generally much later than the others, should be taken up at once and potted. They bloom much finer in the house. Water occasionally with Guano water, or liquid manure, to increase the size of flowers. One pound of Guano, to five gallons of water, is a suitable strength.

Take up roses for early spring blooming. We recommend for this, Pink Dailies, and most of the Bengals, Tea Cels, Devoniensis, Souvenir de Malmaison and Hermosa.

To make an attractive display of flowers in-doors, early in spring, when they will be most highly valued, take up and place in large pots, Wiegelia rosea, Persian Lilacs, Spirea Reeresii, Prunifolia, and Forsythia Viridissima. Our native Kalmia Latifolia is much esteemed in England, for early spring forcing in pots. Hardy annual seeds, such as dwarf German Larkspurs, purple and white Candytufts, Collinsia Bicolor, ditto Verna, Clarkia Grandiflora, and Elegans—Gillia Tricolor, should have been sown last month, but if the weather keeps open, may still do on a warm rich border; cover up with leaves on approach of severe weather.

For potting earth, mix well decayed sods, with short manure, equal parts of each. Plants in windows should be turned around once a week, to prevent growing one sided. Timely hints will be given how to treat plants through winter.

Vegetable Garden.

Dig or plough up ground for next years crop, trenching with spade or subsoil plow. The exposure to frost and alternate freezing and thawing, mellows the soil and destroys weeds and insects. Cut off Asparagus tops close to the ground, and clear out thoroughly all weeds. Spread manure over the bed three inches deep, covering slightly with earth from the alleys. These should also be manured, the whole to be forked in and spaded in spring. Take up and secure be-

fore severe frosts, Beets, Carrots, Salsify, Turnips, &c. Place them in moderate sized heaps out of doors, covering first with straw, and then with a few inches of earth, or if cellar room is convenient, they may be placed in barrels or casks, mixing earth through them and covering with sods. Have shutters or straw mats at hand for covering cold frames of Cabbages, Cauliflowers, &c. These should be insured to cold, by exposing in moderate weather, covering only at nights. Give air to forcing frames to prevent plants from drawing. Take up Cabbages, arranging them in beds, and burying roots and lower leaves in earth; cover with boards, straw or cornfodder on approach of severe weather. Dig up Celery, and for winter use, place in beds, planting the first row against a ridge, then fill in earth nearly to the top, then another row of Celery, leaving four or five inches of earth between each row. Cover the out side row with straw or manure, and a good covering of straw or cornfodder over the top. Manure Rhubarb beds with a heavy coat, both on plants and in alleys, which should be dug in the latter: cover with straw, litter or Cedar brush, &c. (Lettuce, Spinach, Corn Salad and Parsley.) Take up Horse Radish, and lay away in sand or earth for winter use. Dig up Parsnips for early consumption, and place in barrels, covering with sod. Collect and preserve Pea sticks, Bean poles, &c. Gather up Cabbage stumps and all other rubbish, and hand to the manure heap.

Sale of Imported Cattle.

GREAT PRICES.

The sale of the Scioto Importing Company's Cattle, advertised in our last paper, took place at Chillicothe, according to appointment, on the 7th instant, and for the number, wealth and spirit of the bidders, and the high prices obtained for the animals, we doubt whether this sale has ever been equalled in the United States.

ANIMALS SOLD, PRICE AND NAMES OF PURCHASERS.

For Pedigrees see Catalogue in Ohio Cultivator, October 1.

NOBLEMAN, 20 months, \$2,510, J. Vanmeter, Pike county.

MASTER BELLVILLE, 2 years, \$2,210, George Renick, senior, Ross county.

LORD NELSON, 2 years, \$2,825, J. L. Myers, Fayette county.

ALDERMAN, 3 years, \$1,110, A Waddle, Clark co.

GAMBOY, 20 months, \$1,400, M. L. Sullivan, Franklin county.

COUNT FATHOM, 14 months, \$2,175, N. Perrill, Clinton county.

YOUNG WHITTINGTON, 11 months, \$450, A. Watts, Ross county.

RISEING SUN, 8 months, \$1,300, G. W. Herroldth, Scioto county.

ISAAC, 2 years, \$600, G. W. Gregg, Pickaway co.

MOSS ROSE, (cows,) 6 years, \$1,200, A. Waddle, Clark county.

STRAWBERRY, 4 years, \$1000, G. W. Renick, Ross county.

RASPBERRY, 2 years, \$1,100, G. W. Gregg, Pick co.

SUNRISE, 3 years, \$1,230, J. I. Vanmeter, Pike co.

MARY, 2 years, \$1,650, Alex. Waddle, Clark co.

ENCHANTRESS, 2 years, \$900, Alex. Renick, Ross co.

BLUE BONNET, 2 years, \$1,225, Felix W. Renick, Pick county.

The foregoing embrace all of the recent importation, except one young Bull, Adam, not yet recovered from the effects of the voyage, and which is to be sold within thirty days. It is at the farm of M. L. Sullivan near this city. The sixteen animals sold

amount to \$21,885, averaging \$1,637 each; and as several were injured or otherwise defective, and a majority not half grown, it must be admitted that the prices obtained are without a parallel.

It is true that a majority of the purchasers are Shareholders of the Company, and consequently interested in the sales, but we are assured that most of the animals could have been sold almost as high to persons not members of the Company, and no Stockholder was under any obligation to purchase in order to obtain his full share of the proceeds.

A number of bidders were present from Kentucky, and also from distant parts of Ohio, but the prices went entirely above their ideas. All the purchasers are residents of the territory embraced in the Scioto Valley. Each of the individuals named as purchaser, is the representative of a company of neighbors clubbed together for the purpose, except Mr. Sullivan, and perhaps one or two others.—[Ohio Cultivator.

FRUIT CATALOGUE OF THE AMERICAN POMOLOGICAL SOCIETY.

FRUITS WORTHY OF GENERAL CULTIVATION.

APPLES.

Am'n Summer Pearmain,	Gravenstein,
Baldwin,	Hubbardston Nonsuch.
Ballock's Pippin,	Large Yellow Bough,
Danverse Winter Sweet,	Lady Apple,
Early Harvest,	Porter,
Early Strawberry,	Red Astrachan,
Fall Pippin,	Rhode Island Greening,
Fameuse,	Roxbury Russet,
Summer Rose,	And for particular lo-
Swaar,	calities.
Vandervere,	Canada Red,
White Seek-no-Further,	Esopus Spitzenburg,
Wine Apple, or Hays,	Newtown Pippin,
Winesap,	Northern Spy,
	Yellow BelleFleur.

PEARS.

Ananas d'Ete,	Madeleine,
Andrews,	Paradise d'Automne,
Belle Lucrative or Fondante	Rostiezer,
d'Automne,	Seckle,
Beurré d'Anjou,	Tyson,
Beurré d'Arenberg,	Urbaniste,
Beurré Bose,	Uvedale's St. Germain,
Bloodgood,	for baking,
Buffum,	Vicar of Winkfield,
Dearborn's Seedling,	Williams' Boncretien or
Doyenne d'Ete,	Bartlett,
Flemish Beauty,	Winter Nelis,
Fulton,	And for particular lo-
Golden Beurré of Bilboa,	calities.
Louise Bonne de Jersey,	Grey Doyenne,
	White Doyenne,

APRICOTS.

Breda	Moorpark.
-------	-----------

Large Early.

NECTARINES.

Downton,	Elruge.
Early Violet.	

PEACHES.

Bergen's Yellow,	Grosse Mignonne,
Cooledge's Favorite,	Morris White,
Crawford's Late,	Old Mixon Free,
Early York, serrated,	And for particular lo-
	calities.
Early York, large,	Health Cling.
George the IVth.	

PLUMS.

Bleecker's Gage,
Coe's Golden Drop,
Frost Gage,
Green Gage,
Jefferson,
Lawrence's Favorite.

Purple Gage,
Purple Favorite,
Washington,
*And for particular lo-
calities.*
Imperial Gage,

CHERRIES.

Belle Magnifique,
Black Eagle,

Black Tartarian,
Downer's Late,
Downton,

Elton,
Early Richmond, for
cooking,
Griffon or Bigarreau,
Knight's Early Black,
May Duke.

GRAPE.

Under Glass,
Black Hamburg,
Black Prince,
Black Frontignan,
Chasselas de Fontainebleau,
Grizzly Frontignan,

White Frontignan,
White Muscat of Alx'a,
Open culture,
Catawba,
Isabella,

RASPBERRIES.

Fastolf,
Franconia,

Red Antwerp,
Yellow Antwerp.

STRAWBERRIES.

Boston Pine,
Hovey's Seedling,

Jenny's Seedling,
Large Early Scarlet.

CURRANTS.

Black Naples,
May's Victoria,
Red Duch.

White Dutch,
White Grape,

GOOSEBERRIES.

Crown Bob,
Early Sulphur,
Green Gage,
Laurel,
Red Champagne,

Green Walnut,
Houghton's Seedling,
Iron-monger,
Warrington,
Wood's White Smith.

NEW VARIETIES WHICH PROMISE WELL.

APPLES.

Autumn Bough,
Hawley,
Melon,

Mother,
Northern Spy,
Smoke-House.

PEARS.

Brandywine,
Brand's St. Germain,
Beurré d'Anjou,
Chancellor,
Doyenne Boussock,
Doyenne Goubault,
Duchesse d'Orleans,
Duchesse de Berri,
Diller,
Jalouse de Fontenay Vendée,
Kirtland,

Limon,
Manning's Elizabeth,
Nouveau Poiteau,
Onondago,
Ott,
Pratt,
Paradise d'Automne,
St. Michel Archange,
Steven's Genessee,
Striped Madeleine,
Van Assene.

PLUMS.

McLaughlin,
Prince's Yellow Gage,

River's Favorite,
St. Martin's Quetche.

CHERRIES.

Bigarreau Monstreuse de Ba-
vay,
Early Purple Guigne,

Reine Hortense,

GRAPES.

Diana

RASPBERRIES.

Knevett's Giant.

STRAWBERRIES.

Burr's New Pine.

Pennsylvania Horticultural Society.

The stated meeting of this Society was held on Tuesday evening, October 19, 1852, in the Lecture Room of the Museum Building, Philadelphia. C. Cope in the Chair. The display consisted of fine Fruits and Bouquets. The premiums awarded were as follows: By the Committee on Plants and Flowers.

For the best bouquet; for the best basket of cut flowers, and for a basket of indigenous flowers, a special premium, all to Thomas Meehan, gardener to C. Cope.

The Committee, with pleasure, notice two new plants, the *Crocea latifolia*, from C. Cope's collection, and the *Microspermum bartonoides*, from R. Kilvington's, raised from seed, obtained from the borders of Texas, a beautiful plant.

The Committee on Fruits report that there was a very fine display of Pears and Apples, and some of them of delicious kinds.

PEARS.—For the best twelve specimens, Duchesse d'Angouleme, to Thomas Meehan, gardener to C. Cope. For the second best, the Mouille bouche, to Thomas P. James.

APPLES.—For the best twelve to N. W. Roe, for Golden Pippin variety. For the second best to J. H. Watts, Rochester, for St. Lawrence variety. And special premiums for Black Hamburg and Muscat Grapes to H. W. S. Cleveland, and for fine Beurre d'Arenberg Pears to Francis Jouin, gardener to Mrs. J. B. Smith.

The Committee notice a fine display of Pears from Mrs. Smith; a dish of Bavay Reine Claude Plums from C. Cope's houses; and specimens of the Diana Grape, from B. V. French, Braintree, Mass.

PHILADELPHIA, Oct. 19, 1852.

To the President of the Pennsylvania Horticultural Society.

The Fruit Committee respectfully present the following ad interim report:

On the 20th of August, they received a basket of the most beautiful specimens of the Tyson Pear they had ever seen. They were from the grounds of the originator, Mr. Jonathan Tyson, and were of an unusually large size and delicious flavor.

From Samuel Ott, on the 21st of August, fine specimens of the Ott, most delicious. The Juliette, and the Miller Apple, a pleasant apple, of a dark, crimson color.

On the 1st of August, a half barrel of the Bohannan Apple was received from Lewis Saunders, of Grass Hill, Kentucky, accompanied by a letter to the President, a description of the Bohannan, and an interesting communication on the season. These Apples were unfortunately in a bad condition when they came to hand. The specimens were of large size, and fine appearance, but so many of them were in a state of partial or complete decay, that the flavor of those that remained sound was materially impaired. On two former occasions, however, we have had an opportunity of seeing and tasting specimens of this delightful apple, from the grounds of Mr. Landis, which enables us to endorse all that he says in its favor.

Oct. 5th.—From Mr. Hartwell, fine specimens of Winter Nelis, Glout Moreau, Figue, Urbaniste and Beurré d'Anjou, all true to name.

Oct. 7th.—From J. Warner Johnson, five varieties for names, the labels having been lost. No. 1, we consider Louise Bonne de Jersey. No. 2, Urbaniste. No. 3, Duchesse de Angouleme. No. 4, Napoleon. No. 5, the Old Jalouse.

Oct. 9th.—From James H. Watts, of Rochester, a box containing the Sheldon Pear, and St. Lawrence apples. The latter will be seen at the meeting of the Society on the 19th. The pears were too ripe to keep till that time, and were in quality "good," somewhat gritty at the core, and abounding in high flavored juice.

Oct. 12th.—From Charles Kessler, of Reading, a box containing most beautiful specimens of 12 varieties of apples, 2 of pears, and a fine, good sized, and well flavored blue fall plum. The apples were chiefly seedlings, among which were the Heister, York, Fall Damplin, Meister, Fall Vandevere, and seven without names. The pears were the Reading and the Doyenne Blanc.

Oct. 14.—From Samuel Zeiber, of Reading, the Klinger, Hottingous and Non-such apples, neither sufficiently ripe to test.

Oct. 15.—From B. V. French, of Braintree, Mass., a box containing the Catawba, Isabella and Diana grapes, the latter much superior to the Catawba.

The Chair stated that it gave him much satisfaction to announce that he had received the first donation in money ever presented to the Society, the only gifts having been a few of relinquished premiums and books to a limited extent, to the Library. Whilst other societies had been recipients of large amounts, especially the Massachusetts Society, which had received large donations and legacies, and some of the latter on anticipation, our association had not been so favored, although situated in a wealthy community. He hoped that this was the beginning of a new era, and that our institution would be enabled to extend its beneficial influence. The Chair reported that Thomas P. Cope presented fifty dollars for the use of the Society; when, on motion,

Ordered, That the thanks of the Society be tendered to the donor for the acceptable gift.

OBJECTS SHOWN.—By C. Cope's gardener, *Crocea latifolia* a new plant; 3 Pomponé Chrysanthemums; Sacramento, Surprise and la Miniature, very pretty plants; 12 varieties of pears, among which were Duchesse d'Angouleme, Passe Colmar, Napoleon, Excellentissima, &c.; 12 Reine Claude Monstreuse Bavay, raised under glass; 1 basket of cut flowers, showing the 93d bud of the Victoria in the centre; a bouquet of cone form, ornamented with flowering branches of the Aristolochia Braziliensis and a basket of native flowers.

By Mrs. John B. Smith's gardener, pears; var.—Duchesse d'Angouleme, Belle de St. Martigne, Doyenne Siemie, Glout Moreau, Beurre d'Arenberg, Bamieu Van Mons, and Tyson. Also, Reinette de Bretagne apple.

By Robert Kilvington, a new plant, *Microspermum bartonoides*, from the borders of Texas, raised from seed by him.

By H. W. S. Cleveland, of Burlington, very fine bunches of Hamburg and Muscat grapes.

By B. V. French, of Braintree, Massachusetts, bunches of the Diana, (a seedling), Isabella and Catawba grapes.

By S. J. Dick, Isabella grapes.

By J. H. Watts, of Rochester, specimens of the St. Lawrence apple.

By Thomas P. James, pears, Moullé Bouche; 12 Duchesse d'Angouleme, weighing 18 oz., 15½ oz., 14½ oz., 14½ oz., 12½ oz., 5 of which weighing nearly 4½ lbs.; St. Dennis; Brown and Yellow Beurre. Also, plums—Frost Gage, October, &c.

By A. Parker, Butter Pears and Pots of Chrysanthemums.

By N. W. Roe, apples, Golden Pippin; Fall Pearmain.

By Mrs. Krider, Butter pears.

By M. Snyder, Fall Pippin apples.

By Mrs. Gullip, fine Quinces.

From J. Auspach, very large Tomatoes, from a plant 12 feet high, and 15 feet in circumference.

By Anthony Felten, Jr., a display of vegetables.

On motion, adjourned.

THOMAS P. JAMES, Rec. Sec.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The stated meeting of this Society was held in the Chinese Saloon, on Tuesday evening, 21st instant. Gen. Patterson, president, in the chair. The minutes of the last meeting were read. This being a business meeting, there was no display, yet Gerhard Schmitz brought a fine display of cut seedling Dahlias, very perfect flowers, and J. Fulton, a number of cut specimens of standard varieties.

The report of the Committee for awarding premiums at the 24th Exhibition, were read and adopted, as follows, viz:

MUSEUM BUILDING, Sept. 15, 1852.

To the President of the Penn'a Horticultural Society—

The Committee on Plants, Flowers, and Designs, respectfully report the following awards at the Autumnal Exhibition, viz:

Dahlias—For the best 40 blooms, named varieties, to Robert Buist; for the second best, to Gerhard Schmitz; for the best American Seedling, parti-colored, to Gerhard Schmitz. Roses—For the best display, six named varieties, to Henry Sontag; for the second best, to John Sherwood. *Torenia asiatica*—

For the best specimen in flower, to Thomas Robertson, gardener to H. Ingersoll. *Pentas carnea*—For the best specimen in flower, to Thomas Meehan, gardener to C. Cope. *Feronia*—For the best specimen in a pot, to John Sherwood. *Russelia juncea*—For the best specimen, to John Sherwood. *Monetia glabra*—For the best specimen in a pot, to Peter Raabe. *Verbena*—

For the best three varieties, to John Sherwood; for the second best, to Peter Raabe. *Ferns*—For the best display to No. 450. *Achimenes*—For the best display in flower, to Thomas Robertson, gardener to H. Ingersoll; for the second best, to William Hall.

Cacti—for the best 20 named specimens, to Thomas Meehan, gardener to C. Cope. *Hardy Evergreen Trees*—For the best display, to Robert Buist. *Design formed of cut flowers, &c.*—For the best, to Peter Raabe; for the second best, to Joseph Cook; for the third best, to Maurice Finn, Gardener to John Lambert; for the fourth best, to John Kinnier. For the best formed of Mosses and Lichens, to Robert Egee.

Bouquet or design suitable for the table—For the best, Thomas Meehan; for the second best, to H. A. Dreer; for the third best, to Thomas Meehan; for the best formed of indigenous flowers, to the same; for the second best, to Robert Kilvington. *Basket of cut flowers*—For the best P. Mackenzie; for the second best, to Thomas Meehan; for the third best to Robert Kilvington.

Special Premiums—To A. Dryburgh, \$3 00, for a design; to 488, \$2 00, for a design; to Robert Egee, \$2 00, for a design; to David Fergusson, \$2 00, for a design; to Wm. Southward, \$1 00, for a design; to Mrs. M. Newkirk, \$1 00, for a design.

The Committee on Grapes report that they have awarded the following premiums, viz:

Grapes, (native,) for the best named collection, to Isaac B. Baxter; for the second best, to Enoch Roberts; for the best six bunches Isabella, to John Stokes; for the second best, to L. Chamberlain; for the best six

bunches Catawba, to W. W. Dorr; for the second best, to Stacy Scott; for the best Elsinborough, to P. Ruabe; for the second best, to Naomi Dennis; for the best of another variety, (seedling,) to Lloyd Jones; for the second best, to John Siter. (Foreign,) for the best named collection, to George Lazenby, gardener to D. S. Brown; for the second best, to William Johns; for the best three bunches Hamburg, to H. W. S. Cleveland; for the second best, to John Riley, gardener at Insane Asylum; for the best White Muscat, to H. B. Tilden; for the best Frontignac, to H. B. Tilden; for the second best, H. W. S. Cleveland; for the best of another variety, sweet water, to H. B. Tilden; for the second best, the Frankenthal to John Riley. The Committee notice three bunches of great size, of the variety of White Syrian, brought in too late, but for which they award a special premium of two dollars, to A. J. Smith, gardener of Eden Hall.

The Committee on stone fruits respectfully report that they have awarded the following premiums:

Peaches—For the best one bushel, (Crawford's late Melacotan,) to Emmor Roberts; for the second best, to L. T. Haines; for the third best, to J. C. Clark; for the best peck, to Isaac B. Baxter; for the second best (seedling free,) to J. C. Clark; for the best one dozen, (Harker's seedling,) to C. N. Harker; for the second best, (Ward's late free,) to Isaac Webster. *Nectarines*—for the best one dozen, (Red Roman,) to Thomas Meehan, gardener to C. Cope; for the second best, (Elruge,) to H. B. Tilden. *Plums*—for the best two dozen, (Golden Drop,) to Wm. Dorr; for the second best, magnum bonum, to Robert Parham. *Melons*—for the best three, to Thomas Meehan, gardener to C. Cope; for the second best, to Stacy Scott. *Watermelons*—for the best mountain sweet, to Richard Pike; for the second best, to Stacy Scott; for the second best of another variety, (Spanish,) to ———.

The Committee recommend a special premium of \$2 00 to Wm. Cammack, of Washington city, for one peck of very superior Peaches, (Reeve's late yellow) which arrived too late for competition.

The Committee for awarding premiums on Pears at the Annual Exhibition, respectfully report that they have awarded the following premiums:

Pears, (Native).—For the best collection, named varieties, to Thomas Hancok; for the second best, to Parsons & Co., for the best Seckel, one peck, to Isaac Reeves; for the second best, to N. Zelly; for the best six specimens of another named variety, (Chancellor,) to Joseph Greene; for the second best (Washington) to Isaac B. Baxter. *Foreign*—For the best collection, named varieties, to Marshall P. Wilder; for the second best, to Elwanger & Barry; for the best Doyenne Blanc, one peck, to George Liggett; for the second best, to Mrs. Gurn; for the best half-peck of a different variety, Beurre d'Anjou, to William Coffin; for the second best, Duchesse d'Angouleme, to H. W. S. Cleveland; for the best six specimens of another named variety, Bartlett, to H. B. Tilden; for the second best, Flemish Beauty, to Wm. Coffin.

Special Premiums.—For a dish of the Lodge to Wm. Jones; for one of the Kingessing to Isaac B. Baxter; for another, of the Duchesse d'Angouleme, to Joseph Ewen, and one of the St. Michael Archangel to H. W. S. Cleveland.

The Committee for awarding premiums on Apples, Figs and Quinces, respectfully report that they have made the following awards, viz:

Apples—For the best collection of named varieties, to V. B. French, for 154 varieties; for the second best, to J. M. Kane, for 48 varieties; for the best bushel, to Emmor Roberts, for Maiden's Blush; for the second best, to John Perkins, for Fall Pippin, for

the best one peck, to N. Holman, for Fall Pippin; for the second best, to N. Holman, Maiden's Blush; for the best six specimens of a named variety, to M. A. Fulton, for Green's Choice; for the second best to the Lancaster Syrets. *Figs*—For the best twelve specimens to J. J. Sheble; for the second best to William Hall. *Quinces*—For the best half-peck, to J. Edenborn; for the second best, to L. Chamberlain.

Special premiums for interesting specimens of apples exhibited, of two dollars each, viz—to David Miller, Jr., for 143 varieties; to John Perkins for 92 varieties; to George B. Deacon, for 63 varieties; to Parsons & Co., for 42 varieties; to A. Frost & Co. for 42 varieties.

The Committee on Vegetables report as follows:

Potatoes—For the best one bushel to Thomas Yemans, farmer at the Insane Asylum; for the second best, to George W. Holman; for the best American Seedling, to John J. Jennings; for the best Sweet, one bushel, to Jesse Rumbor; for the second best, to William Cooke. *Beets*—For the best one dozen to Anthony Felten, Jr.; for the second best, to James Jones, Gardener at Girard College. *Carrots*—For the best one dozen to A. Felten, Jr.; for the second best, a different variety, to the same. *Salsify*—For the best to James Jones; for the second best to N. Holman. *Onions*—For the best three dozen to George D. Parish; for the second best to A. Felten, Jr. *Cabbages*—For the best six heads to William Hamill, gardener to C. H. Fisher; for the second best, to Henry Batten, gardener to C. Vezin; for the best red Dutch to William Hamill, gardener to C. H. Fisher; for the second best to Thomas Riley, gardener to G. W. Carpenter. *Lettuce*—For the best six heads to Anthony Felten, Jr.; for the second best to Thomas Meghran, gardener to R. Cornelius. *Celery*—For the best six plants to James Jones; for the second best to John Riley, gardener at the Insane Asylum. *Egg Plants*—For the best six fruit to Thomas Rineck; for the second best to Charles Lutz. *Tomatoes*—For the best one peck to William Barry, gardener to Alfred Cope, for the second best to James M. Taze. *Corn*—For the best three dozen to H. Davis, gardener to S. Mason; for the second best to A. Felten, Jr. *Marrow Squashes*—For the best three to Joseph G. Tate; for the second best to H. W. S. Cleveland. *Pumpkins*—For the best to William Hamill, gardener to C. H. Fisher; for the second best to G. W. Holme. *Vegetables*—For the best display by a market gardener, to Anthony Felten, Jr.; for the second best to Samuel Cooper; for the best by a private gardener to John Riley, gardener at the Insane Asylum; for the second best to James Jones, gardener at Girard College; for the third best to Thomas Meghran, gardener to R. Cornelius. *Honey*—For the best display to Francis Parkerson; for the second best to W. W. Dorr.

Special Premiums—For display of vegetables, of two dollars, to Wm. Barry, Gardener to A. Cope. The committee notice some fine Mexican pumpkins and squashes.

By the Fruit Committees, a special premium of the Silver Medal, to Townsend Glover, for a display of fine fruit models.

The Secretary called the attention of the Society to the regulation of the Premium Schedule that competitors shall furnish a list of articles for which premiums are awarded to the Recording Secretary, which, if omitted, premiums will be withheld. On motion, ordered. That on this occasion the time for reporting the list be extended to two weeks.

THOMAS P. JAMES, Rec. Sec.

REPORTS OF COMMITTEES AT PENNSYLVANIA STATE FAIR.

AGRICULTURAL IMPLEMENTS, CLASS No. 1.

The Committee on Agricultural Implements Class No. 1, respectfully report that they have carefully examined the several implements submitted for their inspection, and award the following premiums:

To Savory & Co. of Philadelphia, for their left hand cutter, double horse plow, No. 40, the first premium of \$8. This plow is well adapted for both rough and smooth ground. To Prouty & Barrett, of Philadelphia, for their two horse rod and cutter plow, the second premium of \$5. This plow is well constructed, its shifting point of the share adding much to its worth. To Hall & Spear, of Alleghany county, for their one horse iron plow, No. 2, second premium of \$3. To Prouty & Barrett, of Philadelphia, for their one horse plow, the first premium of \$5. To Prouty & Barrett, of Philadelphia, for their double Michigan plow, a premium of \$5. This was the only plow of its kind exhibited, and is worthy the attention of Agriculturalists for its good qualities. To Hall & Spear, of Alleghany county, for their fine hill-side iron plow, of admirable construction, a premium of \$5. To Prouty & Barrett, of Philadelphia, for their subsoil plow, No. 2, the first premium of \$5. C. B. Rogers, of Philadelphia, presented several very fine plows and other farming implements, among the plows, a very superior subsoil one, highly recommended. It was presented at a late hour, and your Committee can only award to it the second premium of \$3. T. Graffius, of Alexandria, Huntingdon county, presented a very fine plow, with a fine shifting point—a premium of \$2. John Miller, of Lancaster county, a double corn harrow or plow—a very useful article. To Savory & Co., of Philadelphia, for their hill-side plow, No. 3, second premium of \$2. To Prouty & Barrett, of Philadelphia, for their extra cultivator—first premium of \$4. To Savory & Co., of Philadelphia, for their improved cultivator, No. 25, second premium of \$2. To Savory & Co., of Philad., for their expanding harrow, No. 23, first premium of \$4. For their improved expanding harrow, second premium of \$2. To Daniel Gordon, of York co., for his finely constructed roller, and the only one exhibited—the first premium of \$5. Mr. Gordon also presented a most ingeniously constructed pulverizer or harrow, to which he attached a chain and roller. Your Committee deems this pulverizer worthy of a premium of \$2. It is original in its construction, and well adapted to the wants of Agriculturalists. Wm. Rote, of Lancaster county, presented a patent bow-plow, peculiarly adapted to plowing out potatoes, and many other useful purposes on the farm. Wm. Dinger, of York, Pa., presented a fine subsoil plow and cultivator. Hall & Spear, of Alleghany, several very fine iron plows, simple in construction, and well calculated to do good work—first premium of \$8. Samuel Withrow, of Adams county, presented a self-sharpening plow of good quality. John Kennard, of Lancaster county, presented a fine self-sharpening plow. Prouty & Barrett, of Philadelphia, presented several very superior plows, of different construction. Messrs. Samuel Plank and Jacob Bowman, of Cumberland county, presented several very fine coulters and cutter sod plows, strong and well made. David Wolf, of Lebanon county, presented a corn plow model, and your committee regret that the plow was not on the ground, as it would have been justly entitled to a premium. Savory & Co., of Philadelphia, presented several very fine self-sharpening and improved plows, of different models. William

Sterrett, of Juniata county, presented two furrow ploughs, for plowing in grain. Alfred Blaker, of Bucks county, presented a very fine bar shear plow. Shankland, Stevens & Co., of Pittsburgh, presented a fine iron plow, a good article with setting cleaves—second premium of \$5. Wm. L. Craighead of Cumberland county, presented two plows well calculated for fallow ground. Jesse Pawling, of Montgomery county, presented two very fine plows. Your committee regret that they saw no person to represent the plows, as one of Mr. Rawlings' plows took the first premium at the last State Exhibition plowing match.

Your committee cannot refrain from expressing their regret that so few harrows, cultivators and rollers were exhibited, when so good an opportunity was offered for honorable competition, and beg leave to express their hope that at our next annual exhibition a much larger display will be made.

Your committee also feel that the exertion and energy displayed by our many mechanics to further the interests of Agriculturalists in his many arduous duties, is worthy of all praise.

Respectfully submitted by

THOMAS P. KNOX,
SAMUEL HEILMAN,
ABNER RUTHERFORD.

} Committee.

AGRICULTURAL IMPLEMENTS, CLASS No. 2.

The judges of Agricultural Implements in class No. 2, have examined with much care the various articles included in this class, and have agreed upon the following awards:

For the best drilling machine for grain and grass, to S. & M. Pennock, of Chester county, for their drill No. 19, \$10. For the second best drilling machine, to Marshall & Hunt, of Cecil county, Md., for their drill No. 36, \$5. For the best corn planter, to Samuel Withrow, of Adams county, for machine No. 17, a drill with a plow and grain shoe, \$4. For best mowing and reaping machine, to Abner Thompson, of Mifflin county, for McCormick's Reaper, No. 39, \$10. For second best, to Henry Sullenberger, of Dauphin county, for Manny's Reaper, \$5. For best horse-rake, to William Johnson, of Chester county, for Pennock's revolving rake, No. 16, \$4. For best ox yoke, to Prouty & Barrett, of Philadelphia, for yoke No. 24, \$2. For best grain cradle, to Henry Wolfe, of York county, for his cradle No. 2, \$2. For best farm wagon, to Thomas Caster, of Philadelphia, for dumping wagon No. 37, \$8. For best ox cart, to Israel Lamborne, of Chester county, \$8. Some embarrassment was experienced in deciding upon the awards for the drilling and planting machines, in consequence of the large number exhibited, which, in the opinion of the committee, possessed nearly equal claims, so that nothing short of continued use could settle their respective merits decisively.

For the best horse cart, to William Gerrecht, of Lancaster for cart No. 18, \$6. For best cart gears, to William Gerrecht, of Lancaster, for cart gears No. 22, made by Schaffer & Son, \$4.

J. C. CRESSON,
NATH. ELLMAKER,
ADAM HURST,
Wm. McCaun.

} Committee.

AGRICULTURAL IMPLEMENTS, CLASS No. 3.

We, the undersigned committee, class No. 3, on Agricultural Implements, make the following report:

Henry Young, of Wyoming county, one railroad horse power—a diploma. Martin H. Cornell, of Bucks county, horse power and threshing machine—a di-

ploma. O. C. M. Cains, of Lancaster city, one straw cutter, patent—a diploma. Jacob Killinger, of Lancaster city, one corn sheller and cob separator, by hand or horse power—a diploma. Jacob Killinger, of Lancaster city, one sweep horse power, single, bevel wheel, premium, \$5. Diffenbach & Keneagy, Lancaster county, one sweep four horse power—a diploma. John K. Landis, of Lancaster county, one hand straw cutter—a diploma. William Kirkpatrick, of Lancaster city, one sweep horse power, Burrell, patent, premium, \$5. F. W. Zeidler, of Northumb'd co., one clover huller and cleaner—a diploma. William Brackbill, of Juniatta county, one clover hulling and cleaning machine—a diploma. Also one patent chopping mill—a diploma. A. J. Howell, of Juniatta county, one patent clover hulling and cleaning machine—a diploma. Samuel M. Brua, Lancaster county, one patent straw cutter—a diploma. Mills Fry & Co., of Bucks county, one clover huller and cleaner—a diploma. Beecher, Harnish & Beecher, Lancaster county, one clover huller and cleaner. A. B. Crawford's patent do., premium, \$10. Gilbert Rittenhouse, Montgomery county, one railroad horse power and thresher, second premium, \$5. Also, one horse power corn stalk cutter—a diploma. Israel Lamborne, of Chester county, one vibrating straw cutter and grinder—a diploma. Prouty & Barrett, of Philadelphia, one large double corn sheller, separator and cleaner, horse power, a premium of \$4. Also, one corn sheller, cob crusher and grinder, by hand or horse power, a premium of \$5. Samuel B. Haines, of Lancaster city, one sweep horse power, single bevel wheel, a premium of \$5. Also a model sweep horse power—a diploma. M. H. Steever, of Dauphin county, one two horse railroad power and thresher—a diploma. Edwin Clarke, of Lancaster city, one meat and root cutter, a premium of \$5. Savory & Co., of Philadelphia, one vegetable cutter, a premium of \$5. Also a diploma or certificate of merit for the variety of articles they exhibited. Alfred Blaker, of Bucks county, one straw and stalk cutter, a premium of \$4. E. T. Taylor, Thomas & Co., New York city, an excelsior straw cutter—a diploma. Isaiah Aldrick, of Philadelphia, three hay, straw and corn stalk cutters, alike in construction and operation—a diploma. Anthony Sandy, of Juniatta county, clover huller and cleaner—a diploma. Phillip G. Reading, Fredericktown, N. J., one horse power corn sheller—a diploma. Henry Byler, Massillon, Ohio, six or eight horse power thresher and separator, a premium of \$6 and a diploma. Paschall Morris, of West Chester, Chester county, Webb's patent straw and hay cutter—a diploma. S. G. McFarland, of Perry county, corn planter—a diploma. Samuel H. Kohr, of Lancaster county, a meat cutter—a diploma. Jos. Fawks, of Lancaster county, an improved seed planter—a diploma. F. Richardson, of Philadelphia, one hay, straw and corn stalk cutter, a premium of \$2. Alexander Major, of Chester county, one railroad horse power and thresher, a premium of \$10. William Dripps, of Chester county, one grinding machine, eccentric universal mill, a premium of \$4.

Your committee are pleased to state that the exhibition of Agricultural Implements is highly creditable to the exhibition, and your committee endeavored to discharge their laborious duties with impartiality and careful examination.

DAVID COCKLEY,
JOHN S. ISETE,
JAMES MILES,
J. FRANKLIN REGART,

Committee.

AGRICULTURAL IMPLEMENTS, CLASS No. 4.

The Committee on Agricultural Implements, class No. 4, after carefully attending to the duties imposed upon them, submit the following, viz:

To William Dingee, York county, for best portable Hay Press, \$20. The same gentleman also exhibited a horse power hay fork, which is, in our opinion, an article of great utility, and we would strongly recommend its use. Joseph Bruederly exhibited two shaking forks, for which we award a discretionary premium of \$2. There were a variety of hay and manure forks exhibited, all of which were neatly and skillfully made, but, as the Committee considering "Morse's" manufacture superior, from the tests the exhibitors submitted them to, and their judgments, they award a premium of \$2. Simmons' hay-rake, the only one that came under our notice, we award a premium of \$2. A variety of churns came under our notice, and not being able to give them the proper test as to their merits, we could but judge by appearance and the principle, and in doing so, while others present advantages over our ordinary churns, we yet are of the opinion that Savory & Co's. Thermeter Churn is the best, and award a premium of \$4. The variety of fanning-mills was very large and excellent, it being an important item of machinery to the farmer, (to separate the tares from the wheat) we gave it a thorough examination, and while simplicity in construction, changing, &c., are worthy of notice, in a fan that does the work well, we regard that exhibited by John Bamborough as best, and award a premium of \$5. We award a second premium to H. & A. Stoner, for fanning-mill, of \$4. A premium, to Samuel Cochran, for third best fanning-mill, of \$3.

To Edwin Clarke—a diploma.

"Montgomery & Bro.—a diploma.

"Prouty & Barrett—a diploma.

"Mart in Shreiner, Cumberland co.,—a diploma.

"Jesse Roberts, Montgomery co.,—a diploma.

"Samuel Sheble, Philadelphia—a diploma for manure forks.

We further award a premium of \$20 to Prouty & Barrett for the largest collection of Agricultural Implements.

A premium of \$10, to Savory & Co., for the second largest collection of Agricultural Implements.

JACOB M. FRANTZ,

JOHN H. BEAR,

DANIEL HERR,

J. B. ESHELMAN,

J. L. LEFEVRE,

Committee.

STALLIONS AND BROOD MARES.

The Committee on stallions and brood mares, very respectfully report, that they have carefully examined the stock presented for their inspection, and are pleased to state that a large number of very superior horses came under their notice, indicating a decided improvement since the last annual exhibition, and a laudable rivalry amongst those engaged in rearing this valuable stock. In our opinion, the best stallion for heavy draught was the "Fire King," of the Chester Lion stock, owned by William C. Patterson, of Alexandria, Huntingdon county. Entitled to a premium of fifteen dollars.

The second best stallion for heavy draught was the four year old horse, "Bell Founder," owned by Mr. Thomas Moderwell, of Lancaster county. Entitled to a premium of ten dollars.

The black stallion owned by Mr. J. Allen, of Cumberland county; the grey stallion of Mr. W. Trego; the iron grey stallion, "Duke of Normandy," of Mr.

Hollman's, an imported horse; the grey stallion of same breed, owned by Messrs. Styer & Weaver, and a number of others, are very superior draught horses. The two Norman horses we deem entitled each, to a premium of eight dollars, being thorough bred and possessing unusual muscular strength.

The best stallion for quick draught was the "English Clifton," owned by Mr. J. Reed, of Dauphin county, entitled to a premium of fifteen dollars.

The second best stallion for quick draught was the dun stallion, "Golden Eclipse," owned by Mr. Amos Young, of Bucks county, entitled to a premium of ten dollars.

The best stallion for the saddle, "Tom Morgan," by an imported horse owned by Mr. John Clarke, of Philadelphia, entitled to a premium of fifteen dollars.

The second best stallion for the saddle, "Black Clifton," owned by Mr. Samuel Huston, of Cumberland county, entitled to a premium of ten dollars.

The grey stallion owned by Mr. E. Lewis of Philadelphia county.

The bay stallion, owned by John Stout, of Philadelphia; the bay stallion owned by Messrs. Bear & Maginnis, of Lancaster county; the well-bred horse "Sir Charles," owned by Lucian Wilson, of Juniata. The sorrel horse "Sir Henry," owned by Mr. Taylor, and a number of other well-bred horses of the same class were presented, and were considered as all very superior.

The best stallion colt, between two and four years old, is the deep bay of the "Lion" breed, owned by Mr. John Mylan, of Lancaster county, entitled to a premium of ten dollars.

The second best stallion colt, between two and four years old, is the dark bay by "Golden Farmer," owned by Mr. J. R. Hoover, of Lancaster county, entitled to a premium of six dollars.

The best horse colt, between one and two years old, "Cobham," owned by Mr. Peter Brugh, of Franklin county, entitled to a premium of six dollars.

The second best horse colt, "Wild Mettle," owned by Mr. E. Trout, of Bedford county, entitled to a premium of four dollars.

The number of brood mares was limited, and, in the opinion of the Committee, many superior to those exhibited owned by members of the society were not present. In our judgment, none of the first class were offered. The best brood mare for heavy draught is the brown mare of Mr. Jacob Rohrer, of Lancaster county, to which the Committee award the premium of ten dollars.

The second best, the bay mare of Mr. David Styer, of Lancaster county, a premium of six dollars.

No superior mares for quick draught were exhibited. The best was a roan mare, owned by Mr. G. Withers, of Lebanon county, to which a premium of six dollars was awarded.

The best Filly mare colt, between two and five years old, is the dark brown Filly of Mr. A. Laughlin, of Cumberland county, a premium of eight dollars awarded.

The second best is the iron grey Filly, "Wild Mettle," owned by Mr. J. W. Beuhler, of Bedford county; a premium of five dollars awarded.

Some fine horses, amongst them the black stallion of Mr. Quinett, of Pittsburg, arrived too late to be registered under the regulations.

The stallions of heavy draught presented were numerous, many of them approaching the first class. A large number for quick draught, saddle and light harness were exhibited, many of them, also, approaching the first class. So as to render it extremely dif-

ficult to determine to which premiums should be awarded.

A. P. WILSON,
JONAS BOWMAN,
WM. COLDER, JR.,
A. E. RAFF,
Geo. McCULLOUGH,

Committee.

QUICK DRAUGHT AND SADDLE HORSES.

The Committee on Quick Draught and Saddle Horses, respectfully report, that Wm. Griffith, of Dauphin, and Samuel Williams, of Philadelphia, being absent, John A. Beaumont, of Bucks, was appointed Chairman, and that the places of the absentees was supplied by the appointment of Christian Keneagy, of Lancaster county, and John P. Jenkins, of Philadelphia county. Thus constituted, the Committee proceeded to the performance of the duties assigned them.

The exhibition of pairs of Carriage Horses, was not as large as the occasion would seem to have required, as might reasonably have been expected, from the marked competition in horses under other classifications.

Col. S. C. Stambaugh, of Lancaster, exhibited a very superior pair of Carriage Horses, on the 21st inst., but not having had them regularly entered, they were not for that reason alone considered by the Committee in the awarding of Premiums.

For the best pair of Carriage Horses, the Committee awarded to Jonathan S. Beckley, of Lebanon co., the Premium of \$10.

For the second best pair of Carriage Horses, the Committee award to Wm. L. Smith, of Allegheny county, the premium of \$6.

Charles P. Steinmetz, of Lebanon county, also exhibited a pair of fine Carriage Horses.

Quite a number of superior Geldings for quick draught and saddle, were exhibited single, and although in the printed schedule of premiums, no provision would seem to have been made for this class, the Committee call the omission to the attention of the Executive Committee, and most respectfully recommend a premium of \$10 for the best quick draught Horse, () to John B. Edwards, of Lancaster county, and a premium of six dollars for the second best quick draught and saddle Horse, to Benjamin Hershey, of Lancaster county.

The Committee also took pleasure in noticing the fact that J. H. Strickler, of Lancaster county, exhibited two superior quick draught and saddle horses, and that Cyrus S. Haldeman, of Lancaster county, exhibited a very fine and perfectly trained family horse for single harness.

F. S. Bletz, of Lancaster county, also exhibited a very superior saddle and quick draught horse.

The Committee also report that a number of geldings between two and four years old, were exhibited, and as they too would seem to stand in the predicament of the class last mentioned, the committee respectfully recommend a premium of \$10 for the best colt gelding to Samue. Houston, of Cumberland co.

The Committee beg leave also to remark, that Jas. Lee, of Cumberland county, exhibited a very fine three year old gelding, and Richard Anderson, of Cumberland county, a three year old Filley.

All of which is respectfully submitted.

JOHN A. BEAUMONT,
MARK CONNELL, JR.,
H. N. McCALLISTER,
CHRISTIAN KENEAGY,
JOHN P. JENKINS,

Committee.

HORSES, HEAVY DRAUGHT MULES AND TEAMS.

To the President of the Pennsylvania State Agricultural Society.

The Committee on Horses, heavy draught Mules and Teams, make the following report, to wit: That they have awarded to John Benson, for the best pair of Mules, a premium of \$8. To David Mast, for the best Jack, a premium of \$8.

The Committee regret very much that the Society have not directed premiums to be allowed for the best and second best draught Horses, and presume it must have been a neglect on the part of the Committee who arranged the list of Premiums. We, as a Committee on that important branch of Agricultural interests, would respectfully recommend that a premium of \$8 be paid to Henry Baumgardner for the best draught Horse. And, also to Samuel Ruby, of York county, for the second best a premium of \$5.

Your Committee regret exceedingly that the competition in the exhibition of draught Horses, Mules and Teams, has been so extremely limited, and would recommend to the Society, at its next annual exhibition, to offer premiums that would be some inducement to the owners of the kind of Stock to exhibit the same. We would, therefore respectfully recommend that the following premiums be offered for the next exhibition: For the best team of five Horses, \$15. For the second best ditto, ditto, \$10. For the third best ditto, ditto, \$5. For the best team of six Mules, \$15. For the second best ditto, ditto, \$10. For the third best ditto, ditto, \$5. For the best pair of Plough and Farm Horses, \$10. For the second best ditto, ditto, \$5. For the best Cart and Dray Horse, \$8. For the second best ditto, ditto, \$5.

The above report is respectfully submitted.

JAMES IRWIN,
C. H. SNEAFF,
CHARLES E. HIESTER,
CHARLES L. WAMPOLE,
DAVID COBLE,

Committee.

Lancaster, Oct. 21, 1852.

CATTLE TWO YEARS OLD, AND UPWARDS.

The Committee on cattle two years old, and upwards, would respectfully report that they have attended to the duties assigned them, and in coming to their decision, have given such time and attention to their examination, as its importance demanded.

Your committee were very much gratified to find so large a number of fine cattle on the ground for exhibition, but should have been pleased to find a more general competition in some of the breeds of cattle. Your committee feel the importance and would urge the adoption of measures for the establishment and publication of a herd book for the State, similar to "Coate's" English herd book, in which to enter the names of stock breeders, their stock pedigree, &c., as well as their issue from year to year. Such a record would be invaluable to breeders, furnishing a safe and easy source hereafter, of tracing the pedigree of cattle brought for exhibition. It would also furnish purchasers of stock important information. Six three year old Durham steers were exhibited by Isaac Landis, of Lancaster county, fine animals. No premiums being fixed to such stock, they are recommended to the favorable consideration of the Executive committee—premium awarded, \$8. We would also recommend the fine herd of cattle of various breeds exhibited by General George Cadwalader, to the attention of the Executive committee—premium awarded, \$15. Your committee congratulate the society upon the great success which has so

far attended this noble enterprise. The present large and respectable display of stock and other useful articles in husbandry, speaks well for the future, and we hope that at no distant day the Pennsylvania State Agricultural Society will rival, at least, any other Agricultural Society in the Union. The following is a list of premiums awarded:

DURHAM STOCK.—James Gowen, of Philadelphia county, first premium, best bull, "Rockland," \$15. Charles Kelly, second best bull, "Billy Bluff," \$10. Henry Benedum, Berks county, best cow, \$12. Samuel Cooper, Philadelphia county, second best cow, \$7. Hugh McIntire, Lancaster county, best heifer, \$8.

DEVONSHIRE.—Richard Pim, Chester county, best bull, \$12. John McGovern, Lancaster county, second best bull, \$8. Richard Pim, Chester county, best cow, \$10. Neal Lagan, Lancaster city, second best cow, \$7.

AYRSHIRE.—A. R. McIlvaine, Chester county, best bull, "Lamokin," \$12.

ALDERNEY.—Henry Twaddle, Philadelphia county, best bull, \$12.

Henry Twaddle, Philad. co., 2nd best bull, 8

" " " " best cow, 10

" " " " 2nd " " 7

" " " " best heifer, 8

NATIVES OR GRADES.—John Clarke, best cow, \$10. Richard Pim, second best cow, \$7. David Mast, Lancaster county, best heifer, \$6. Frederick Keller, Lancaster county, best bull, \$10.

Wm. HEISER,

PASCHALL WORTH,

A. HERSHBERGER,

MARTIN NEWCOMER.

Committee.

CATTLE UNDER TWO YEARS OLD.

The Committee on Cattle under two years old respectfully report: They award to James Gowen, Esq. of Philadelphia county, for his exceedingly fine, short horned Durham Bull, "Leopard," the first premium of \$8. To Richard Cartwright, of Philadelphia county, for the second best Durham Bull, \$5. To James Gowen, Esq., of Philadelphia county for his Durham Heifer, "Dairy Maid," eighteen months old, the first premium of \$6. To Hugh McIntyre, of Lancaster county, for second best Heifer, under two years, the premium of \$4. To Isaac Landis, of Lancaster county for best Bull Calf, over four months old, the first premium of \$5. To Geo. Cadwalader, Philadelphia county, for his Bull Calf, "Bravo," over four months old, the premium of \$3. To George Cadwalader of Philadelphia county, for his Heifer Calf, "Blossom," over four months old, the first premium of \$2, and for his Heifer Calf, "Myra," over four months old, the premium of \$2.

NATIVES OR GRADES.

To David Mast, Lancaster county, for his native Bull, twelve months old, the first premium of \$5. To John Musselman, Lancaster county, for his native Bull, eighteen months old, the second premium of \$3. To W. L. Craighead, Cumberland county, for his best Heifer, over one year, the first premium of \$5. To James Long, Lancaster county, for his native Calf, over four months old, the first premium of \$4. To George Hauck, Lancaster county, for his twin Heifers, ten months old, the discretionary premium of \$5. To Henry Benneaux, of Berks county, for his Bull Calf, of over four months, A. Boyd, of Lancaster, owner, the premium of \$3. To Samuel Feather, Lancaster county, for second best Calf, the premium of \$2.

HOLSTEINS.—To Jacob Rohrer, Lancaster county, for his Bull under two years, the first premium of \$8.

To Joseph G. Taylor, Chester county, for his best Heifer, one year old, the first premium of \$6.

DEVONS.—To Jacob Rohrer, Lancaster county, for Devon Bull, under one year, the first premium of \$6. To Robert McAllister, Juniatta county, for best Bull Calf, over four months old, the first premium of \$4. To Isaac Brubaker, of New Holland, Lancaster county, for his Bull, six months old, the premium of \$2. To Jacob Rohrer, Lancaster county, for best Devon Heifer calf, between one and two years old, first premium \$5. To Jacob Rohrer, for second best, \$3. To Jacob Rohrer for best Heifer calf, over four months old, \$4.

ALDERNEYS.—To Henry Twaddle, Philadelphia county, for the best Alderney Heifer, under two years old, the first premium, \$6. To Henry Twaddle for Heifer one year old, \$4. To Henry Twaddle for Heifer four months old, \$4. To Aaron Clement, Philadelphia county, for the best Alderney Bull, under two years old, the first premium of \$8.

AYRSHIRE.—To George Cadwalader, Philadelphia county, for his exceedingly beautiful Ayrshire Heifer Calf, "Red Lady," under one year, the first premium of \$4. The Committee also award discretionary premiums to the following: To H. Moore, Lancaster county, for his very handsome Heifer Twins, thirteen months old, native stock, the premium of \$8. To Christain Eby, Lancaster county, for his Twin Calves, native stock, the premium of \$5. To Henry Brackbill, Lancaster county, for his native Twin Calves, (Bulls,) eleven months old, the premium of \$5.

Great praise is due to Contributors for their zeal in furnishing stock, at much expense and trouble, and without any desire to diminish the honor due to all Contributors, the Committee cannot conclude this hasty report without special reference to the exceedingly fine Stock of Cattle, furnished by Gen. George Cadwalader, of Philadelphia county. Thirty head of Cattle of different grades were on exhibition by this gentleman, and his example is now referred to for imitation by future contributors of fine stock. The Committee regrets that farmers in the immediate vicinity of the Exhibition grounds submitted so small an amount of Stock. They trust this will not be found a cause of complaint at future Exhibitions.

ROBERT BRYSON,
ABM. KAUFFMAN,
WM. STAVELY,
JOHN KENEDEY,

Committee.

CATTLE, NATIVES OR GRADES, WORKING OXEN AND FAT CATTLE.

The Committee on working oxen, grades and fat cattle respectively report, That they were much disappointed by the very small number of animals under this class, submitted to their inspection. The exhibition being in a county widely known for its agricultural resources, it was expected that heretofore would have been a large representation of at least our native and grade stock. A few only were brought to the ground, attributable, no doubt, more to the fear often entertained by farmers, of their stock not being successful competitors, which deters them more from bringing them out, than to any actual deficiency in the animals themselves. The committee would observe that the comparison of stock, attainable only at these exhibitions, and the interchange of views as to their several points of value for feeding, for work, or for the pail, the different modes of rearing management, &c., are objects which it is the very design of the State Society to promote in their schedule of premiums, and they would encourage the farmers,

especially in districts adjoining the location of the show grounds, at least for their own benefit, to send on their stock.

They award the first premium for the best pair of working oxen to Christian B. Herr, of Lancaster co., for a large pair of fine animals, of active step and superior working qualities, and remarkable for being under perfect command, working on either side with equal facility. Their weight, 4530, \$15. They award the second premium to James Gowen, Esq., of Philadelphia county, for a beautiful pair of cattle, full bred Devons, showing evidence of ability for active work, combined with great endurance. For working cattle, probably, the Devons are unsurpassed, \$10. They award the third premium to C. A. Thompson, of Juniatta co., for a yoke of Devons three years old, well broken and of even speed, \$7. For the best fat oxen they award the first premium to Richard Pim of Chester county, for a pair of pure Devons weighing 3844 lbs. They were of fine form, combining fineness of bone, with great disposition to fatten. \$15.00.

There was but one fat steer exhibited by Daniel Leamon, of Lancaster county, four years old and for which they recommend a complimentary premium of \$5.

PASCHALL MORRIS,
DANIEL LANDIS,
DAVID KILLINGER,
DAVID BENDER,
DAVID STYERS,
JOHN BENSON,

Committee.

SHEEP AND WOOL.

The Committee on Sheep, appointed by the Pennsylvania Agricultural Society, beg leave to report that they have attended to that duty. The subject submitted to them has been distributed under the following heads:

1st. FINE WOOL.—Your Committee regret to say that there is not a Merino or Saxon Merino on the ground.

2d. CORSWOLD, (improperly called Long Wool.) For the best Buck they award to Benjamin Hood, of Chester county, a premium of \$6. For the second best to Aaron Clement, of Philadelphia, a premium of \$4. The Sheep of these two exhibitors were so much alike that your Committee found it difficult to give the preference. For the best Ewes your Committee award to Gen. George Cadwalader, of Philadelphia, a premium of \$6. For the second best your Committee award to Benjamin Hood, of Chester county, a premium of \$4. For the best Lambs your Committee award to Benjamin Hood, of Chester county, a premium of \$5. For the second best to Henry G. Herr, of Lancaster county, a premium of \$3.

3d. SOUTHDOWNS.—For the best Buck they award to John Worth, of Chester county, a premium of \$6. To Aaron Clements, of Philadelphia, for the second best, a premium of \$4. For the best lot of Ewes, to John Worth, of Chester county, a premium of \$6. For the second best to Gen. George Cadwalader, of Philadelphia, a premium of \$4.

3d. MIXED BREEDS.—For the best Buck to Cyrus Miller, of Lancaster county, a premium of \$5. For the second best to Benjamin Hood, of Chester county, a premium of \$3. For the best lot of Ewes, to Jacob Rohrer, of Lancaster county, a premium of \$6. For the best lot of Wethers, to Benjamin Hood, of Chester county, a premium of \$3. For the second best to Henry G. Herr, of Lancaster county, a premium of \$2. For a Lamb of mixed breed, your Committee award to Miss C. Yates a discretionary premium of \$2. Your Committee in awarding these last premiums beg

leave to remark, that they do not approve of these amalgamations of wool.

The subject of Wool not having specially submitted to your Committee, they do not feel themselves authorized to do more than state that Mr. James G. Ewing, of Washington county, and Mr. James G. Stream, of the same county, have exhibited samples of fleeces of fine Saxony-merino wool, of a very superior quality, for which they are each entitled to a premium of \$5.

All of which is respectfully submitted by

P. A. BROWNE, } Committee.
Jno. H. EWING, }

SWINE.

The first prize to J. Wilkinson for the best boar, over two years, \$6. Second prize to C. S. Haldeman, \$4. First prize to J. Wilkinson for the best boar, one year old, \$6. No second prize in this class was awarded. The first prize to Cyrus Miller, for the best boar, six months old and under one year, \$6. The second prize to J. Wilkinson, \$4. The first prize to J. Wilkinson, for the best sow over two years, for his celebrated Dutches Sow, "Old Pink" which has taken the first prize in three States, and her pigs have been sold for breed, to go to all parts of the country, in the past five years, for over one thousand dollars, a premium of \$6. No second prize in this class was awarded. The first prize to J. Wilkinson, for the best sow over six months and under one year, \$6. The second prize to Cyrus Miller, \$4. The first prize to J. Wilkinson, for the best Neapolitan sow, over two years old, \$6. There was no second prize awarded for the small breeds. The first prize to Benjamin Hickman, for the best five pigs, \$5. The second prize to Cyrus Miller, \$4.

The number of Swine exhibited was not so large as was expected, though there were a number of very fine fat hogs, for which no premiums were offered. Among them were two very large, fine fat, barrows, by Jacob Sheidel; another by Daniel Potts, and two beautiful sow shoats by Mr. C. Miller. The greatest curiosity, by far in this department, was Mr. Wilkinson's hairless Neapolitan Sow.

All of which is respectfully submitted, with the confident hope that the above decisions will be concurred in by all good judges on the ground.

LEWIS SHARPLESS, } Committee.
JAMES RAWLINS, }
RICHARD PARKER, }

BACON HAMS.

The Committee on Bacon Hams award to Joseph Konigsmacker for best Ham, \$5.

SIMON CAMERON, } Committee.
ROBERT ELDER, }
THOMAS P. COCHRAN, }

POULTRY.—The Committee on Poultry beg leave to report that after a very careful examination of the very large and beautiful display of Fowls, they have agreed to award the following premiums:

For the best pair of Turkeys, no. 23, Jacob Rohrer, of Lancaster co., a premium of \$2 00. Hon. D. B. Vondersmith, Lancaster City, second best \$1. For the best pair of Bremen Geese, No. 28, to Albertus Welsh, York, Pa., \$2. Samuel C. Stambaugh, of Lancaster, second premium for one pair of West India Geese \$1. For the best pair of Muscovy Ducks, blue, to F. W. Beates, Lancaster, Pa., \$2 00. Second best to H. P. Carson, Lancaster, \$1.

COMMON DUCKS.

Best cage, Richard Cartwright, of Philadelphia

county, \$2 00. The Committee consider the Jersey Blues unworthy of notice as a distinct breed.

DORKINGS.—John N. A. Kolb, York, Pa., for the best pair of White Dorkings, \$2 00. R. Fraley, Germantown Pa., for the second best pair of White Dorkings, \$1 00. Master Wm. W. Spangler, Lancaster City, for the best pair of Speckled Dorkings, \$2 00. Thackara Smith, Marshallton Chester co., second best, \$1 00.

SHANGHAES.—John McGowan, Bridesburg, Philadelphia co., best pair pure blooded, \$2 00. Robert Purves, Byberry, Philadelphia co., second best, \$1 00. To I. A. Heinitsh, of Lancaster, for a pair of Shanghaes, \$2.

COCHIN CHINAS.—Robert Purves, Byberry, Philadelphia co., best pair, \$2 00. James Gillespie, West Philadelphia, second best, \$1 00. For the largest collection of Fowls, Dr. James McClintock, Philadelphia, \$8 00. The Committee recommend the following special premiums:—To Robert Purves, Byberry, Philadelphia, for a beautiful display of Cochin China Fowls, a premium of \$8 00. James Gillespie, West Philadelphia, \$8 00. Wm. Leonard, Philadelphia, \$5 00. Aaron Clements, Philadelphia, \$5 00. Gould & Arnold, Lancaster City, \$5 00. Thackara Smith, Marshallton, Chester co., \$3 00. John Felix, Harrisburg, White Muscovys, \$1 00. Jacob Rohrer, for a cage of Blue do., \$1 00. Jacob Rohrer, for Capped Furkeys, \$1 00. Jacob Rohrer, for Wild Geese, \$1 00. Albertus Welsh, York, Pa., for a pair of China Geese, \$2 00.

SHANGHAES.—G. M. Zahm, Lancaster co., Shanghae fowls, \$2 00. Wm. Mathiot, Lancaster co., ditto, \$2 00. William Leonard, Philadelphia, ditto, \$2 00. S. T. Jones, Harrisburg, ditto, \$2 00. S. T. Jones, ditto, ditto, \$1 00. Thackara, Smith, Chester co., ditto, \$1 00. Horace Rathvon, Lancaster, ditto, \$2 00.

WHITE SHANGHAES.—R. Fraley, Germantown, best pair, \$2 00. Dr. J. McClintock, Philadelphia, second best, \$1 00. John Metzler, Sporting Hill, Lancaster co., for best display of White Shanghaes, \$2 00.

COCHIN CHINAS.—Master Willie W. Spangler, Lancaster, Pa., for a pair of Cochin China Fowls, \$2 00. R. Purves, Byberry, Philadelphia co., ditto, \$2 00.

WHITE DORKINGS.—Cyrus S. Haldeman, Bainbridge, Lancaster co., \$2 00. Charles Boughton, Lancaster, Golden Pleasants, \$2 00. Gould & Arnold, ditto, ditto, \$1 00.

GAME FOWLS.—Albertus Welsh, York, Pa., for superior Sumatra Game Fowls, \$2 00. J. N. A. Kolb, York, Pa., for Sumatra Pleasant Game Fowls, \$2 00. Dennis Marriion, Lancaster, for Game Fowls, \$2 00. George Albright, Lancaster Pa., for two pairs of African Bantums, \$2 00. William Leonard, Philadelphia, for pair Sebright Bantums, \$2 00. William Leonard, Philadelphia, for pair of Japan Fowls, \$2 00. Barnes Broom, Lancaster, Pa., for pair of Grey Eagle Fowls, \$2 00. R. Fraley, Germantown, for pair of Grey Chittagongs, \$2 00. Jonas Bowman, Philadelphia, for pair of Pheasant Fowls, \$2 00. William Leonard, Philadelphia, for Powee Diploma. Daniel Miller, Carlisle, Pa., exhibited a fine Grey Eagle. John H. Landis exhibited a fine Sea Fowl. George W. Felix, Harrisburg, for the best display of Faney Pigeons, \$2 00. Morton Morris, West Chester, for Madagascar Rabbits, \$1 00.

The Committee feel gratified in being able to state that the display of Poultry was creditable in the highest degree. Many of the Fowls were very superior, and so close was the competition and so numerous

the competitors, that the awards were made with much difficulty. In consequence of this commendable rivalry, it was agreed, after consultation with a number of the principal officers of the society, to recommend a larger number of discretionary premiums than was perhaps at first contemplated. The Poultry Department is one which deservedly attracted great attention, and should be liberally encouraged.

The Committee would ask the attention of Exhibitors to the following. First, correct nomenclature, and secondly, to arrange their contributions in the coops, in the precise manner in which they are entered upon the books of the Society. If these simple rules were observed, much labor would be saved the Committee, and the Exhibition would prove more interesting and profitable to the spectators.

A. F. NEWBOLD, } Committee.
A. M. SPANGLER }
ADRIAN CORNELL, }
C. BOUDINOT. }

DAIRY AND HONEY.

The Committee on Dairy and Honey report, That the exhibition of dairy products is very small, and by no means such as the great importance and value of this branch of Agriculture would seem imperiously to require. A reference to the returns of the last census (1850) shows that the number of milch cows in the State, was 530,224, which, at a price of \$15 00 per head, amounts to \$7,953,360. The number of pounds of butter reported to be made that year was 39,878,418, which, at a price of twelve and a half cents per pound, would amount to \$4,779,802 25. The number of pounds of cheese made was 2,505,034, which, at six cents per pound, is \$150,302 04. Value of both, \$4,930,102. The value of butter and cheese per cow, at the above prices, is only \$9 29 per year.

The Committee think the above an under estimate, both in quantity and price, and have no doubt that the value of the butter and cheese in this State this year, is quite eight millions of dollars. It is estimated that the dairy product of Susquehanna county, as stated at their late fair, is one quarter of a million of dollars. In some portions of the State, the farmers are turning their attention almost exclusively to the dairy and the rearing of stock, and they find it profitable. It belongs not to this committee to discuss the value of the different breeds of cattle for dairy purposes, but the testimony of James Gowen, Esq., (most eminent authority) as well as of many others of our eminent practical farmers is in favor of the Short Horned Durham and its crosses, as possessing finer milking properties than any other class. That the breeding of cows, with reference to their milking properties is necessary, in order to proper success, need not be affirmed. It is too evident. In nearly all our ordinary dairies are to be found cows which, while yielding considerable quantities of milk, make very little butter. Every farmer ought to test the quality of every cow's milk when four years old. The test is very simple. Strain the milk for a few successive days into tumblers about six inches deep. Compare the thickness of the cream with that of cows of established milking properties. Weigh the milk for a few days, and churn it, or the cream from it, by itself, and make a similar comparison. Many cows will be turned out of dairies by these simple tests as worthless, and their places supplied by those which are valuable. There are other rules given in treatises on the dairy, for testing the milking qualities of cows, which the limits properly assigned to this report, forbids us to notice.

In a large portion of the State, no butter is packed

for winter's use, and, as a consequence, the markets and tables in many of our towns, during that season of the year, are supplied with an insipid, pale butter, instead of a fine, fragrant, golden-colored butter, laid down when there is a superabundance in May and June. Again, the proper limits of the report forbids anything more than a mere hint. In several counties of the State, the farmers sell none of their butter fresh. They pack it all, and they find a full price. The best dairies in Susquehanna county are now selling at the farmers houses for twenty to twenty-five cents per pound, and the May and June butter is esteemed the most valuable. The fair yield per cow, in the best managed dairies, is thirty-five to forty dollars per cow. In the counties in the vicinity of the great cities, the farmers send their butter to market almost daily, and usually obtain high prices, some of their flocks of cows yielding forty to fifty dollars per head. The importance of properly preserving the summer and fall butter for winter and spring use, cannot be too earnestly commended to the farmers of the State. There ought to be more profit from the small dairies, and butter of a better quality ought to be produced. The Committee commend the process described by Mr. E. V. Dickey, of Chester county, to whom the second premium is awarded, as worthy of attention.

The preservation of butter depends mainly upon three things. 1st, the quality of the milk. 2nd, the care in working out all the butter milk. 3rd, the keeping the milk and butter of an even temperature. These hints, thus briefly thrown out, it is hoped may be of service to this interesting and highly important branch of Agriculture.

The Committee award the premiums as follows:

For the best butter, of five pounds, to Jonathan F. Garrard, of Sharpsburg, Alleghany county, \$5. To E. V. Dickey, of Oxford, Chester county, second best, \$2. To Mrs. Margaret H. Zook, of Lancaster county, 3rd best, \$2.

The specimens of butter put up by Isaac Eckman, of Lancaster county, adorned with flowers and in ornamented cones, was very beautiful—a splendid ornament to an elegant table, delighting the eye while it regaled the taste.

The Committee have so far extended their remarks on butter, that they cannot venture to intrude any upon cheese and honey.

The premiums awarded are as follows:

For the best cheese, they award the premium to Job Hayes, of Chester county, \$5. For the best ten pounds of honey, to W. & S. Green, of Newtown Square, Delaware county, \$5. The hive of bees exhibited by Messrs. Green, is the most perfect of any which has fallen under our observation—diploma.

The exhibition of firkin butter, from Susquehanna county, by William Jessup, consisted of one firkin June butter, laid down by Mrs. Joseph Decker. One ditto, July butter, by the same. One ditto, August butter, by Mrs. James Waldie. One ditto, September butter, by Mrs. John Harrington. One tub of September butter, by Mrs. James Waldie. One ditto, by Mrs. Hiram C. Conklin. One tub exhibited by Miss Sarah M. Walker, of Woodburne, Susquehanna county. These butters are designed for winter's use, and were put up without any reference to exhibition at the State Fair, and are fair samples of the ordinary dairies of that county. They are warranted to retain their fineness until May next, if kept of even temperature and away from the air. The Committee award the first premium to Mrs. Jacob Decker for June butter, \$5. Second premium to ditto, for July butter, \$5. The Committee also award a premium of five dollars

each, to Mrs. Waldie, Mrs. Harrington, Mrs. Conklin and Miss Walker. They also award the second premium for cheese to Mr. John Turnbull, of Susquehanna county, \$3. They also award premiums of two dollars each, to the following exhibitors of cheese: Mr. Charles Loomis, of Susquehanna county, Mr. J. Burnett, ditto, and Mr. C. J. Curtis, ditto.

WILLIAM JESSUP,
KETCHLEY MORTON,
EDWIN JAMES,
JOHN B. ADAMS,
Geo. BLIGHT. } Committee.

The methods of making butter and cheese, adopted by several competitors, were attached, and will be published in the proceedings.

FRUIT.

The Judges on fruit respectfully Report that previously to entering on the performance of their duties, they appointed Doctor J. K. Eshleman, of Chester county, and Mr. Casper Hiller, of Lancaster county, judges to supply vacancies occasioned by the non attendance of Messrs. Wm. F. Rogers, of Bucks county, and J. M. McMinn, of Chester. The following awards were then made: For the best and greatest number of choice varieties of apples, to David Miller, Jr. of Cumberland county, \$5. For the best do. do. to Jacob Cocklin, of York county, \$2. For the best and greatest number of choice varieties of peaches, to J. Williams, Thorne, Chester county, \$5. For the second best do. do., to John M. Sumy, Lancaster co., \$2. For the best and greatest number of choice varieties of pears to Dr. J. K. Eshleman, of Chester county, \$5. For the second best do. do., to Isaac B. Baxter, Esq., of Philadelphia, \$2. For the best and greatest number of choice varieties of quinces, to Dr. J. K. Eshleman, of Chester county, \$5. For the second best do. do. to J. B. Kast, Cumberland county, \$2. For the best and greatest varieties of grapes, to John M. Sumy, of Lancaster county, \$5. For the second best do. do., to Isaac B. Baxter, of Philadelphia, \$2. For the greatest number of choice varieties of different kinds of fruit to Casper Hiller, of Lancaster county, \$8. For the second best do. do., to John M. Sumy, of Lancaster co., \$5. To Enos Conard, for Apple trees, \$5. To Lewis Light, for peach trees, \$5. The Judges noticed with much gratification so fine a display of Fruits; in this respect, the improvement on the last State Fair was particularly striking. A beautiful collection from the Hon. Jona. McWilliams, of Huntingdon county, containing twenty-one varieties of apples, for which a premium of \$5 was awarded. They cannot, also, refrain from noticing specially, the large and fair specimens of White Doyenne Pears, exhibited by Peter Reinheist, of Dauphin county, and Dr. Emanuel C. Carpenter, of Lancaster city. The branch loaded with quinces of large size and beautiful appearance, grown by George Bear, of Lancaster. The magnificent belle-fleur apples, from H. S. Zahm, of Lancaster. The box of dried prunes, by Miss Helfenstein, of Lancaster. The large and fine collections of a native Pennsylvania apple, exhibited under the several synonyms of "Fallen Water," "Tulpehocken," and Pound, by Abraham Brenner, Asabel Walker, David Miller, Jeremiah Greiner, and from the Perry county Agricultural Society. They also noticed, with much pleasure, many promising seedling apples, of Pennsylvania origin. Among these we will notice the "People's Choice," from J. W. Thorne, of Chester county, "Cocklin's Favorite," from Jacob Cocklin, of York county, and David Miller, of Cumberland co. The Mountaineer, exhibited by David Miller, found

growing in the mountains, about twelve miles from Carlisle,—and the William Penn, of good size and possessing a remarkably delicious flavor, from J. W. Houston, of Columbia.

W. D. BRINCKLE,
J. B. GARBER,
DAVID MILLER,
J. K. ESHLEMAN,
CASPER HILLER, } Committee.

VEGETABLES.

The Committee on Vegetables of the second Annual Exhibition of the Pennsylvania State Agricultural Society, in pursuance of the duties detailed to them beg most respectfully to report that they have made the following awards according to the schedule of premiums laid before them, viz:

No. 75. To Casper Hiller, of Lancaster county, for the best assortment of vegetables, a prize of \$8. No. 71. To Joseph G. Taylor, Chester county, for the best 12 halflong blood beets, \$2. No. 19. To Casper Hiller, Lancaster county, for one dozen best turnip rooted beets, \$2. No. 12. To F. S. Vogel, Lancaster county, for the best six heads of cauliflowers, \$2. No. 81. To Elias Roher, Lancaster county, for the best 12 heads drumhead cabbages, gross weight of clean heads, 205 lbs., \$2. No. 16. To Casper Hiller for the best dozen carrots, \$1. No. 21. To Daniel Sternman, Lancaster county, for the best dozen celery, \$1. No. 68. Cyrus Haldeman, Lancaster county, for the best peck of onions, \$1. No. 72. Joseph G. Taylor, Chester county, for the best dozen parsnips, \$1. No. 64. Joseph R. Cornell, Bucks county, for the best ½ bushel seedling potatoes, named stone hill, \$1. No. 14. Casper Hiller, Lancaster county, for the best peck of sweet potatoes, \$1. No. 9. Martin Nunemacher, Lancaster county, for the best 3 field turnips, \$1.

They would also award the following special premiums:

No. 10. To F. S. Vogel, Lancaster county, a special premium for 12 roots chicory, \$1. No. 11. F. S. Vogel, Lancaster county, for 12 heads of red cabbage, a special premium of \$1. No. 38. John F. Heintz, Lancaster city, for a choice French butter pumpkin, weighing 62½ lbs., a special premium of \$1.

It would have afforded your committee much more gratification to have seen a more numerous display for competition. They beg leave to use the freedom to suggest that all who have any garden products on coming occasions, should bring them forward freely, as in many instances the prizes far eclipse the value of the articles on which they are bestowed. There was no article closely competed for, unless that of cabbage, two other lots of which were within a shade of being equal to the twelve that obtained the first prize. We are indebted to the spirit of our fellow member, Peter Bright, Esq., for having brought to our notice the great seedling potatoe, from the Wabash, Indiana, called "seedling pink eye." There were seven of them, averaging 2 lbs each, and some have been known to be as heavy as 4 lbs., and are in quality and productiveness (as report says) equal to their size.

All of which is respectfully submitted.

R. BUIST,
HENRY T. WEIGART,
BENJ. HERR. } Committee.

AGRICULTURAL PRODUCTIONS.

The Committee on Agricultural Productions having carefully examined the various articles in that department, and critically compared the samples exhibited in competition, beg leave to present the fol-

lowing report. For the best bushel of White Wheat, (Blue Stem,) exhibited by C. B. Herr, Lancaster county, they award the premium of \$2. For the next best do. (Orange,) exhibited by Abraham Hess, of Dauphin, they recommend a premium of \$1. For the next best bushel of Red Wheat, (Mediterranean,) exhibited by Mr. G. E., care of David Hartman, they award the premium of \$2. For the next best ditto (Mediterranean,) exhibited by John H. Miller, of Lancaster county, they recommend a premium of \$1. For the best bushel of Gourd Seed, (Oregon,) exhibited by Casper Hiller, of Lancaster county, they award a premium of \$2. For the best bushel of mixed Corn, exhibited by Isaac Eckman, of Lancaster county, they award a premium of \$2. For the next best ditto, exhibited by Charles Cassaday, of Lancaster county, they recommend a premium of \$1. For the best bushel of Oats, exhibited by C. S. Wampole, of Montgomery county, they award a premium of \$2. For the next best ditto, called Canadian, (evidently the potatoe,) exhibited by Peter Hunsecker, of Lancaster county, they recommend a premium of \$1. For the best bushel of Potatoes, (Mercer,) exhibited by S. C. Slaymaker, of Lancaster county, they award a premium of \$2. For the next best ditto, (Bermuda,) exhibited by Dr. John Kervin, of the State Lunatic Asylum, Dauphin county, they recommend a premium of \$1. For the best bushel of Sweet Potatoes, exhibited by Benjamin Buckwalter, of Lancaster county, they award a premium of \$2.

In conclusion, the Committee award high praise to numerous Exhibitors of Agricultural productions, whose several names and articles will be specified in the general report. They cannot, however, avoid an expression of regret that greater competition in many particulars had not existed, but as the subject is comparatively new, in central Pennsylvania, the present effort will doubtless lead to increased exertion. All of which is respectfully submitted.

DAVID LANDRETH,
S. TURBITT,
MARSHALL B. HICKMAN,
JAMES EVANS, } Committee.

TOBACCO.

To Frederick Watts, President of the Pennsylvania State Agricultural Society.

The Committee on Tobacco beg leave to make the following report. They have, after a careful examination of all the samples exhibited, award the first premium of \$8, to John H. Smith, of Lancaster county, Pa. The second premium of \$6, to Peter Roth, of York county. Your Committee also recommend a special premium to Henry Engle, of Lancaster county, of \$3, for a sample of Seed Leaf exhibited. John S. Gable, of Lancaster, and P. G. Eberman exhibited fine samples of the crops of 1851, but your Committee think exhibitors should be confined to the crop of 1852, in the receipt of premiums, and neither of the last named samples were equal to those to which premiums were awarded. John K. Herr and James Collins also exhibited good samples. The quantity exhibited, though not large, was generally of a good quality. Evans & Shultz, of Lancaster, exhibited a variety of segars, of an excellent quality and superior workmanship, for which your Committee recommend a premium of \$5. All of which is respectfully submitted, &c.

DAVID MUMMA,
J. P. RUTHERFORD,
JOHN F. SHRODER, } Committee.

SILK.

The Committee on Silk have examined the specimens of silk Cocoons, raw and reeled silk, sewing and spun silk exhibited, and they award to David M. Everly, of Lancaster county, a premium of \$5, for the best lot of Cocoons, which are of the pea-nut variety, and excel in firmness, compactiveness and weight. To Miss Harriett Summy, of Lancaster county, a premium of \$3, for the second best lot of the same variety, distinguished by the same qualities, but in a less degree. Also, a premium of \$3 for beautiful specimens of Silk, spun from perforated Cocoons, and suitable for the manufacture of Gloys or Hose. To David M. Everly, they likewise award a premium of \$3, for the best specimens of raw and reeled silk; one of the pea-nut, of 15 fibres to the thread, the other of white, having 12 fibres to the thread, both remarkable for their regularity and perfection. And they award to him three dollars premium for the best specimens of sewing silk, these are twisted and contain 160 fibres to the thread, and are soft, of equal thickness and apparently of great strength. There are two specimens, each of considerable quantity, and dyed. Miss Sumy exhibited a small specimen of 18 skeins of sewing silk, twisted from the raw silk, and retaining the gum, which the Committee think is not quite equal to the former. Mr. Jonas Bauman, of Philadelphia, exhibited for the Shakers of "White Water Village," Ohio, a handsome specimen of raw and reeled silk, of six fibres to the thread, which the Committee admire for softness and beauty, but as it is not the growth of Mr. Bauman, they believe they have not the power to award him a premium, though they commend him for the exhibition.

A. L. HAYES,
A. B. ANDERSON,
WM. R. GERGES, } Committee.

FLOWERS.

The Committee on Flowers report that there was not exhibited any collection of growing flowers, nor of Roses, nor of Camellias, nor any collection of Dahlias, as deserving a premium. They cannot therefore award premiums, as intended by the society. But certain other articles were found on the list committed to them, which though no premiums were offered for them, yet the Committee think deserving either of extra premiums, or honorable notice thereof. A good, small collection of Hot-House Plants, including a fine specimen of the "Screw Palm," "Cinnamon Tree," "Banana Tree," "Sugar Tree," "Coffee Tree," &c., exhibited by the Hon. D. B. Vondersmith, of Lancaster city, to which they award a premium of \$5. Boquet of Artificial flowers, of Feathers, by Barbara Minnich, of Lancaster county, of \$3. Wreath of Artificial Flowers, made of hair, by Miss Mary M. Eberman, of Lancaster city, a premium of \$3. Handsome Boquet of Natural Flowers by Mrs. A. E. Roberts, of Lancaster county, 66 varieties, and many of them very fine, a premium of \$2. Boquet of Natural Flowers by Joseph Tewdall, gardner to J. W. Houston, of Columbia, Lancaster county, a premium of \$2. Two vases of Artificial Flowers, of paper, by M. B. Thomas, of Chester county, a premium of \$1. A Basket of Artificial Flowers, of paper, by Master C. Kine, of Lancaster city, a premium of \$1. Three vases of Artificial Flowers, of wax, well made and colored, though not quite true to nature, by James S. Cambell, of Lancaster city, a premium of \$1. The Committee were also glad to see a good collection of Evergreen Trees and Shrubs, by David Miller, Jr., of Cumberland county. Also, one by Paschall Morris & Co., of West Chester. And a good, small col-

lection of Cacti and other Hot-House Plants, exhibited by A. N. Breneman, of Lancaster city.

R. PATTERSON,
THOS. H. BURROWS, } Committee.

HOUSEHOLD MANUFACTURES.

To the President of the Pennsylvania Agricultural Society.

The Committee on Household Manufactures report that they have examined the articles named, and described in the list submitted to their charge. Many of them, in our opinion, merited premiums, which, under the authority given us, we could not award.

To Dana Graham, Lancaster, Pa., a variety of Horn Combs, diploma. Jacob B. Shuman, Lancaster county, for the best silk Quilt, \$5. Mrs. Dr. Kerfoot, Lancaster city, for second best silk Quilt, \$3. Mrs. Barbara Echtermacht, Lancaster county, best Quilt, \$5. Mrs. Dr. R. E. Cochran, Columbia, Lancaster county, for the second best Quilt, \$3. Mrs. John G. Kleiss, Lancaster city, for the best Counterpane, \$3. Mrs. Henry Stayley, Gettysburg, Pa., for second best Counterpane \$2. Mrs. Stone, Lancaster city, for best small Quilt, diploma. Miss Lacy A. Swartz, Lancaster city, best Hearth Rug, \$3. Mrs. Rachel Taylor, Chester county, best sample of home-made Bed Curtains, \$1. Henry Hersh, Lancaster, Pa., best Rag Carpet, diploma. Lancaster County Prison, exhibited by H. Hersh, for best pieces cotton Kerseymer, \$1. Mrs. Horace Rathvon, Lancaster city, for best Ladies for Urn Stand, diploma. Mr. Abraham Hendel, Lancaster city, best umstead worsted Sofa Cushion, diploma. Mrs. Anna Weigand, Lancaster city, for large picture, diploma. Miss Yates, Lancaster city, best Window Blinds, \$1. Ephraim Newcomer, Lancaster city, best Towel and Pillow Cases, diploma. Minerva Bennett, Chester county, best Netting Work, diploma. Mrs. M. B. Garman, Lancaster city, best Tidy for Rocking Chair, diploma. Do. do. do., for Quilt, diploma. Mrs. S. Kenedy, Lancaster city, best Pound Cake, \$2. Miss Lydia Miller, best Floss Box, diploma. G. Appleby, Lancaster city, best home-made Bread and Biscuit \$2. Benjamin Buckwalter, Lancaster city, second best Bread, \$1. Miss Kate Weaver, Lancaster city, for fancy Lamp Shade, diploma. Mr. William B. Fordney, Lancaster city, for second best Fancy Picture, needle work, diploma. Lousia Reinsinger, Elizabethtown, Lancaster county, for best piece of Needle Work, \$1. Perry County Agricultural Society, for best Domestic Linens, \$2. Also, one Quilt, diploma. Matilda B. Thomas, Chester county, for best Bed Valance, diploma. Samuel Branett, Cumberland county, for best pair of Quilts, diploma. Catharine L. Bear, Elizabethtown, Lancaster county, one Quilt, made with left hand, diploma. Mrs. Margaret Watson, Lancaster county, for best worked Ottoman Covers, \$1. Miss Erb, York county, best Sofa Cover, diploma. John H. Ducham, Lancaster city, variety of Jellies, \$2. Mary S. Carpenter, Lancaster city, one pair Worsted Slippers, diploma. Matilda B. Thomas, Chester county, for Cake Cover, Chair Cushions, one Cushion, diploma each. Miss S. H., Lancaster city, for three samples of thread Lace, premium \$1. Two pairs fancy children's Hose, \$1. E. V. Dickey, Chester county, best Reticules, diploma. Mary Hoffman, Lancaster city, for a pair of knit cotton Hose, diploma. Mrs. Eliza G. Walker, Allegheny county, for best pair white wool half Hose, diploma. Miss Yates, Lancaster city, for best honeycomb Towelings, \$1. Do. for best Piano Cover, \$1. Miss Ann H. Burrows, Lancaster city, for pair Ladies' half Hose cotton, diploma. Mr. Henry C. Loc-

her, Lancaster city, one jar Pumpkin Butter, \$1. Jacob B. Shuman, of Lancaster city, for domestic Linen Shirt, \$2. Do. Crab Apple Jelly, diploma. Miss Francis Gerhart, Philadelphia city, for one large Quilt, diploma. Miss Mary Hoffman, Lancaster city, for unfinished Quilt, containing 2635 pieces, and is said to be in the 72d year of her age, diploma. Miss C. L. Haldeman, for one jar of Apple Butter, diploma. Susan E. Swartz, Adams county, for picture of Pennsylvania College, worked in worsted, exhibited by Samuel Witherow, premium, \$1. To Mrs. Joh Hayes, of Chester county, for best pair of home-made Blankets,

THOMAS P. COCHRAN,
ROBERT ELDER,
JOHN EHLE, } Committee.

MECHANIC ARTS AND UNENUMERATED ARTICLES.

The Committee No. 28, on unenumerated articles and Mechanic Arts, Report that they have discharged that duty. In consequence of the very large number of articles referred to them for examination, they have with great difficulty come to the following conclusion. They would respectfully suggest to the Executive Committee, that, as great variety of articles are presented by Ladies and enterprising mechanics that whenever in their power, it would be deemed advisable to allow as many small premiums or other awards as they can with propriety and justice to other branches of industry, but would particularly recommend the following, viz:

Domestic Glass Ware, by Francis H. McCush, Allegheny county, was a very pretty specimen of variegated and fancy glass ware. We recommend that a premium be awarded of \$5. A Copper Kettle by C. F. Laise, of Lancaster city, was worthy of notice. A Dressing Case, by Andrew W. Bear, of Lancaster city, a lad sixteen years of age, is well worthy of notice, and is deserving of a premium of one dollar. Geo. Flick, of Lancaster, exhibited two cases of handsomely Stuffed Birds. Wm. C. Chamberlain, of Lancaster, also had two cases of Stuffed Birds which were very beautiful. Each a Diploma. Beecher, Harnish & Beecher, of Lancaster county, exhibited a Cloth shearing machine, which was a very pretty specimen of mechanism. A premium of three dollars awarded. Miss Hamersly, of Lancaster, exhibited four colored Crayon drawings, of much beauty and highly deserving of notice. A Diploma. Miss P. Madden, of Lancaster, presented some very fine specimens of needle work. Mr. H. Baumgardner, of Lancaster, exhibited some fine specimens of Naticoke Coal. Simon S. Rathvone, of Lancaster, displayed a cabinet of very beautiful insects. A Diploma. E. W. Carpenter, of Lancaster city, exhibited a variety of superior Planes, to whom we recommend a premium of three dollars. John Stamm, of Lancaster, presented three Planes worthy of especial notice, and a premium of one dollar. C. A. Heimish, of Lancaster city, displayed a variety of powder and ground spices. A Diploma. I. Rothermel, of Lancaster, a variety of Brushes, which were very creditable to the manufacturer. A Diploma. Roe & Case, of York, Pa., Hay, Stock and Platform Scales for which we also recommend a premium of five dollars. Conestogo Steam Mills, displayed a specimen of their manufactures, such as Prints, Sheetings, Tickings, &c., all of which was much admired by the committee. A Diploma. Mrs. Worley, of Lancaster county, a very handsome fancy chair, which is a fine specimen of needle work. A Diploma. \$2. very handsome fancy baskets, by Miss Caldwell,

Lancaster county. A Diploma. Geo. Kitch, of Lancaster county, a lot of fine pressed bricks. A Diploma. H. C. Locher, a display of handsome Morocco Leather, worthy of a premium. A Diploma. Miss Shreiner, of Lancaster city, a beautifully worked fancy worsted Rocking Chair. A Diploma. Mrs. Wm. Mathiot, of Lancaster city, a beautifully ornamented picture frame, made of leather, and also an elegant bracket of the same material, more particularly admired by the Committee. A Diploma. Savery & Co., of Philadelphia, for "Varnish Boilers," and enamelled milk pans, both of which does credit to the manufacturers. A Diploma. Geo. F. Rote, of Lancaster city, a variety of Cabinet work made worthy of special notice, and also Cabinet ware, by C. Widmyer, of Lancaster city, equally worthy of attention, both, a Diploma. Jesse Roberts, of Philadelphia, a handsome variety of Lamps, well worthy of notice. A Diploma. Joseph A. Kauffman, of Lancaster city, a pair of French boots of very neat workmanship, worthy of a premium of three dollars. Konigmacker & Bowman, of Lancaster city, two dozen Calf Skins, and two rolls of fine leather machine belting, for which we recommend a premium of three dollars. P. L. O'Rourke, of Lancaster city, one drab coat of handsome workmanship, and well got up. A premium of one dollar. Andrew Gohn, of Lancaster county, a sample of russet bridle leather, and a very fine chaise hide, a premium of two dollars. M. H. Locher, of Lancaster city, a lot of Lasts and Shoemakers Tools, which were very creditable to the manufacturer, a premium of one dollar. H. Sidel, of York county, a very ingenious Hub Auger, and box regulating machine. A premium of two dollars. C. Anne, of Lancaster city, a handsome manufactured work box. Robert Jackson, of Philadelphia, for a great and handsome display of Zephyr Work, for which we recommend a premium of two dollars. D. Drawbaugh, of Cumberland county, a stave jointer, worthy of a premium of two dollars. Bolden & Price, of Philadelphia, for their handsome display of Adamantine, Stearine and Sperm Candles; Cod liver, tanners and other Oils, and are worthy of a premium of five dollars. Miss Isabella A. Slaymaker, of Lancaster county, exhibited a specimen of Thibet made of Turkey feathers, which displays much taste and ingenuity. A Diploma. Miss Ehrman, of Lancaster city, also a very handsome raised worsted worked Ottoman. A Diploma. Lacy & Phillips, of Philadelphia, for a very handsome set of double harness. A premium of six dollars. Emanuel Metzgar, of Lancaster city, a premium for his handsome set of double harness; second premium of four dollars. Henry Pinkerton, of Lancaster city, for his set of double harness. A Diploma. E. Shaefer & Son, of Lancaster city, for their very handsome riding Saddle and Russet traveling Trunk, \$3 each. A. F. & S. C. Slaymaker, of Salisbury, Lancaster county, for superior turned bed posts, a premium of \$2. Henry Shepler of Franklin county for his portable combined cider mill and press, a premium of \$3. There were several others exhibited of a similar construction, which were also deserving of notice. The committee also noticed a portable, circular saw mill. The owner not being present, we can say very little about its merits. G. W. Wagner, of Roxborough, of Philadelphia county, for his superior light buggy wagon, with top, a premium of \$5. Quinn & Palmer, of York, Pa., for their neat hunting wagon, a premium of \$3. B. Landis, Lancaster county, for his light family carriage, also a premium of \$3. John R. Landis, Lancaster county, for his sausage cutter, a premium of \$1. J. Franklin Reigart, Lancaster city,

exhibited a model of a cast iron bridge, which appears to be a very complete piece of mechanism and ingenuity. He also exhibited two very fine specimens of fancy penmanship. Miss Mary Eberman, Lancaster, a very handsome and ingeniously contrived hair wreath, a diploma. S. B. Haines, Lancaster city, a very well arranged tew pipe, for smith's forge, which the committee consider highly creditable and ingenious, a premium of \$2. Lewis Cooper, Lancaster co., exhibited a lime spreading machine, which, after trial, proved satisfactory—a premium of \$5. Wm. Everhart, Fayette county, for samples of a handsome Window Glass, a premium of \$2. Abol Barker, Honesdale, Wayne county, for his double-acting, forcing and lifting Pump, which was fully tested in supplying the exhibition grounds with an ample supply of water, a premium of \$5. William Chandler and Isaac B. Millington, of Chester county, both exhibited Hydraulic Rams, of very similar construction, which seem to answer a very good purpose, and are worthy of notice.

The Committee also notice a lot consisting of several barrels of Chemical Manure, prepared by Mr. A. Poysson, of Philadelphia. They regret that this gentleman was not present, to give the requisite information respecting this article, but from the intelligence they were able to gain concerning it, they are inclined to the opinion that it is deserving of notice from Agriculturists, and for its practical effect as a fertilizer.

The Committee feel that they would fail in an important part of their duty did they omit to notice, in the strongest terms of commendation, the very extensive and interesting collection of Wools, exhibited by P. A. Browne, Esq., of Philadelphia.

The industry and perseverance of this gentleman, in examining and elucidating this important branch of Agricultural economy will, when properly understood and appreciated by our Pennsylvania Sheep Farmers, do much towards promoting a proper system of breeding and management of the different varieties of Sheep. The collection of Wools exhibited, comprises above 1200 specimens, from various parts of the world. About 400 of them are from a collection of Saxony Wool, presented to Mr. Browne, by the King of that country, embracing varieties from the principal Sheep growing districts of the Kingdom. There are upwards of 100 varieties from various parts of the United States, among which the Committee are pleased to find many from our own Pennsylvania Sheep Farmers, which, for fineness of staple and excellence of quality, will compare favorably with those from any other part of the world.

Evans & Walker, of Philadelphia, exhibited and tested, by fire, to the full satisfaction of the Committee their fire-proof safe. A premium of \$5. Moses S. Woodward, Chester county, for improved Brake for wagons and carts, a premium of \$2. To Samuel Groff, for Sattinetts exhibited, a diploma. R. W. Addis, for Daguerotypes, a diploma.

The Committee would respectfully submit this report to the Executive Committee.

ROBERT T. POTTS,
JAMES CRESSON,
JOSEPH KONIGMACKER,
GEORGE W. SHAEFFER,
E. W. HALE,
LEWIS LEVY, } Committee.

The Committee neglected to insert Mrs. Louisa Coffey, of Lancaster city, in the foregoing report, for her case of very handsome Infant Shoes, which are worthy a diploma.

JOSEPH KONIGMACKER, Sec'y of the Committee.

MECHANIC ARTS AND UNENUMERATED ARTICLES, No. 29.

To the President and Officers of the Pennsylvania State Agricultural Society, now meeting at Lancaster:

Your Committee appointed to examine articles under Class No. 29, on 2d Class of Unenumerated Articles, would respectfully report that they have attended to that duty, and beg leave to make the following report:

Two large Urns, marked on the list silver, but which were plated, presenting no novelty, except perhaps antiquity, deposited by Thomas E. Shull, of Mifflin county. By Dittenbach & Kennealy, Strasburg, six samples of Iron Railings. By John W. Wilson, of Lancaster, several specimens of Marble Work, for which we recommend a diploma. By C. Keiffer, of Lancaster, one Cast Iron Sofa; one do. do. Chair; one do. do. Tree Box; one do. do. Panel of Fence; one Wrought Iron Gate. The gate was very well made, and the castings good. We could not ascertain whether the design was original or borrowed. Recommend a diploma. By Thomas H. Burrows, of Lancaster, two sets School Desks and Chairs, a diploma. By Lewis Haldy, of Lancaster, one Tombstone of Rutland Marble, a diploma. By Lewis Bridge of York, Parlor Stove. By Alexander Bradley, of Pittsburg, three Parlor Cottage Franklin Stoves, two Cook Stoves, and one Coal Stove. The Franklin Stoves were neat in design and workmanship, and the arrangement of the dampers and blowers was very convenient and superior, and for them we would recommend the first premium of \$5. By Wm. Brady, of Mount Joy, one case Mill Picks, Axes, &c. The display was the best, the articles well finished, and to all appearances such as would reflect credit on any establishment, and for them we would recommend a premium of \$5. By Henry Brinkman, of Lancaster, one Cooking Stove, most of it wrought iron. We could, in the absence of the maker, discover no peculiar quality about it. By Geo. D. Sprecher, five stoves, very good articles. By Samuel Haines, of Cumberland county, two Axes and one Hatchet; these appeared to be good articles, and well formed, though not so highly finished as others exhibited. A diploma. By Russel & Geiger, of Lancaster, display of Stoves, made by North, Harrison & Chase. Abbot & Lawrence, of Philadelphia, a good display of well made articles. By I. C. Middleton, one dozen improved Knife and Scissors Sharpeners.

All of which is respectfully submitted.

W. O. HICKOCK,
P. R. FREAS,
JAMES S. HUBER, } Committee.

PLOWING MATCH.

The Committee on Ploughs and Ploughing, respectfully report that they have attended to the duty assigned to them, and have awarded the first premium for a plough, to Prouty & Barrett, for their No. 55, of \$8. The second premium to Jesse Pauling, of Montgomery county, \$5. The third premium to Hall & Spear, of Pittsburg, for their No. 10, of \$3. The fourth premium to Jacob Wenger, of Lancaster county, of \$2. They have awarded the first premium for ploughing, to E. G. Gray, of \$15. The second to John Plank, of \$10. The third to Robert H. Blake, of \$8. The fourth to Jonathan F. Garrard, of \$2. The whole of the work was done in a highly creditable manner, and there was much merit in many of the ploughs that have no premiums awarded to them. The Committee would much like to be able to notice these latter more particularly, but are at present

unable so to do from press for time, the hour for the promulgation of the presentment having arrived before your Committee had finished their labor.

EDWIN MOORE,
SAMUEL BUCKMAN,
G. BLIGHT BROWN,
A. R. McILVAINE,
WM. MARTIN. } Committee.

FIRE PROOF CHEST.

The Committee appointed to superintend the testing of the fire-proof qualities of Evans & Watson's Fire-Proof Chests, respectfully report, That in pursuance of their appointment, they placed in one of the above named chests, a large number of papers, and after having locked the chest and secured the keys, they saw piled around and upon it, about three cords of dry wood. At 11 o'clock, A. M., fire was applied to this, and at 2½ o'clock, P. M., the wood being consumed, the chest having attained a white heat, the coals were drawn away, and the chest suffered to cool. On opening the chest, the papers were removed, not entirely unscathed, but sound and perfect as when placed in the chest.

DAVID MUMMA,
H. W. SNYDER,
E. W. HALE,
ABNER RUTHERFORD,
L. LEARS. } Committee.

MEETING OF THE LANCASTER COUNTY AGRICULTURAL SOCIETY.

At a meeting of the Lancaster County Agricultural Society, October 1st, 1852, the following report was read and ordered to be published:

The Fruit Committee of the Lancaster County Agricultural Society do report to the President and members generally, That in the very pleasant duty assigned them, of examining and testing fruit, they have had one meeting since their last report, September 9th, 1852. The committee had given public notice of the time, with a request that persons having good fruit, should exhibit specimens to the committee. But with few exceptions, their desire to make known, and, as a consequence, disseminate more extensively any new and good fruit, was not responded to with that ardor which the committee would wish. Yet the committee believe, if their labors are continued in connection with similar committees and individuals in other sections, the "signs of the times" give them hope that there are strong indications of a more general appreciation of good fruit, and a desire among the great mass of farmers and others, to procure and cultivate none but the most select. By the few specimens presented, as well as from other sources, the committee are fully of the opinion that many valuable seedling fruits remain in comparative obscurity throughout the county of Lancaster. To bring these before the public, requires time, with aid and assistance from all sections of the county, frequent meetings of the committee at different seasons, to test the various fruits of summer, autumn and winter.

At the present time, we find a stronger interest exhibited all over the country towards the acquisition of good fruit, than at any former period—and we are greatly encouraged in our labors by the cheering prospect that, with the aid of individuals, committees, societies and pomological congresses, much good will ultimately result to Pomology and Horticulture generally.

Among the specimens presented, the committee consider the following as worthy of a brief notice:

APPLES.—*Smokehouse*.—Specimens of this variety were offered by J. Hershy, of large size and great beauty. This fine seedling, of Lancaster county, is so well known as to require no extended notice.

Summer Sweet Paradise.—Synonyme—apple-butter apple, watermelon apple, &c., by several contributors, —a large, greenish apple, of fine flavor; native of Lancaster county.

A medium sized yellow sweet apple, by J. H. Hershy. Another medium size, yellow, sub-acid flavor, by same.

Two apples, by J. H. Garber, of large size, the one yellow and the other dark red, with faint yellow stripes, both of medium quality, sub-acid flavor. These were received for *Baldwin* and *Graffenstein*, but neither of them answer to the description in the book.

Several others were before the committee without name or extra merit, and, therefore, no notes taken of them.

PEARS.—*Shenk's Pear*.—Synonyme—HosenShenk, smokehouse, butter pear, &c., This very popular fruit originated in this county, and was considered by the committee as of very superior quality. Size, medium to large, color yellow, of a true pyriform shape, quality sweet, juicy and very pleasant. Splendid specimens presented by J. H. Hershy.

Bartolte.—Fine large specimens by Casper Hiller and J. B. Garber. This celebrated eastern variety was considered inferior to some others as an eating fruit, but on account of large size, splendid appearance, thrifty growth and hardness of the trees, bearing young and constantly, the committee consider it as one of the most valuable pears.

Sugar Pear.—Medium size, pleasant flavor. J. H. Hershy.

Apothecary Pear.—Large size, rather coarse grained, but of a peculiar flavor, sweet and very pleasant considered superior to the Bartlett. By the same.

Butter Pear and extra large *Seckle*, by E. W. Carpenter, both of first-rate quality.

PEACH.—Among the numerous varieties presented the following deserve a passing notice:

A large *Seedling Cling*, red and yellow, superior, C. Hiller.

Sawyer, a seedling free-stone, medium size, good, same.

Susquehanna, a very large free-stone, red and yellow, rather acid, but excellent—good show fruit, same.

Another large cling, no name, sweet and pleasant, same.

Belle de Paris.—This is a first-rate variety, of medium size, color white, with a faint blush towards the sun, flesh white, juicy, rich and pleasant. By J. B. Garber.

A large seedling cling, no name, good, by same.

A medium sized free-stone, strong peach flavor, good; by J. Peters.

A variety of cling-stone seedling, dark-red, good; by same.

PLUMS.—Fine large specimens *Magnum Bonum*, by C. Hiller.

GRAPES.—Splendid bunches *Catawba* grapes, by J. Peters.

Superior *Isabella* grapes, by Daniel Rhoads.

Also a sample of M. D. Rhoads' home-made currant wine, to which the committee done ample justice, and agreed, without a dissenting voice that it "was hard to beat," but "not hard to take."

All the above fruits are in season from the middle of August to the middle of September.

Respectfully submitted on behalf of the committee by J. B. GARBER.

THE NEW YORK AGRICULTOR.

A WEEKLY JOURNAL IN LARGE NEWSPAPER FORM.

Devoted to the interests of the COMMERCIAL as well as PRACTICAL FARMER and PLANTER, the STOCK BREEDER, the RURAL ARCHITECT, the FRUIT and ARBORICULTURIST, the MARKET and KITCHEN GARDENER, and the FLORIST: together with a complete summary of the most important FOREIGN and DOMESTIC NEWS. Published every Thursday.

TERMS.

One Copy,	-	-	-	\$2 per annum.
Three Copies,	-	-	-	5 " "
Five Copies,	-	-	-	8 " "
Ten Copies,	-	-	-	15 " "
Fifteen Copies,	-	-	-	20 " "
Twenty Copies,	-	-	-	25 " "

The first number will be issued on Thursday, Oct. 21. Postage, Half a cent per week.

All Postmasters and others, disposed to act as Agents, will be furnished with Prospectus and Specimen numbers, on application to the Publishers.

A. B. ALLEN & Co., 189 Water St., N. Y.

THE NEW YORK FARM AND GARDEN.

A MONTHLY JOURNAL, OF THIRTY-TWO PAGES, DOUBLE COLUMNS, IMPERIAL OCTAVO: MADE UP, PRINCIPALLY BY SELECTIONS FROM THE WEEKLY PAGES OF "THE NEW YORK AGRICULTOR."

This periodical will be devoted exclusively to the Farmer and Planter, the Stock Breeder, the Rural Architect, the Nurseryman, the Gardener and the Florist.

Each number will be filled entirely with PERMANENTLY VALUABLE reading matter. No advertisements allowed in its columns; and not even the large headings, or terms and contents, usual on the first and last pages of similar journals, will be permitted. All such matter will invariably appear on the cover. Thus, the numbers of the FARM AND GARDEN, bound up at the end of the year, will have the same appearance as a book. This is a new feature in periodicals of this class, and should the more highly commend it to public favor. Published on the first day of each month.

TERMS.

One Copy, \$1.00 per annum. Three Copies, \$2.60 per annum. Eight copies, \$5.00 per annum.

Lower rates than the above will be made with Agricultural Societies or Clubs, by taking a larger number of copies. Postage, only one-half a cent per month.

Postmasters and others, disposed to act as Agents, will be furnished with Prospectus and Specimen Numbers, on application to publishers.

A. B. ALLEN & Co., 189 Water St., N. Y.

INDUCEMENT TO GENTLEMEN ACTING AS AGENTS.

—Any person forwarding us ten or more subscriptions each, for either of the above papers, will be entitled to a copy, gratis, for one year.

Seed and Agricultural Warehouse.

No. 29, Market Street, Phila.

WHERE the subscriber has opened an extensive assortment of GRASS AND GARDEN SEEDS, of his own raising, or recent importation, and warranted to be as represented.

He is, also, manufacturing all the most approved Agricultural Implements, among which he would call the attention of Farmers to a new article of Plow, of his own invention, called Cast-Steel, Extending Point, Self-Sharpening, Surface and Subsoil Plows, which for durability and easy of draft is yet unequalled.

The great advantages these Plows possess over all others, are their peculiar construction and the substitution of Cast-Steel in the place of Cast Iron, which only wants to be seen to be appreciated; all of which will be sold on the most reasonable prices by

May

C. B. ROGERS

FARMERS! LOOK TO YOUR INTERESTS.

STILL GREATER IMPROVEMENTS IN GRAIN

DRILLS.

PRICE REDUCED TO SIXTY DOLLARS!



SEED AND GRAIN PLANTER.

MOORE'S PATENT

This Machine was Patented July 2, 1850, and has received the highest premium at all the Exhibitions where it has ever been contested; including New Castle County, Delaware, Agricultural Society, October 9th 1850; Philadelphia and Delaware County Agricultural Society, October 17th, 1850; Maryland State Agricultural Society, October 23d, 1850, and October 24th, 1851, and Michigan State Agricultural Society, September 25th, 1851.

THE ABOVE DRILL is not liable to get out of repair, is exceedingly simple in its construction, will sow point rows in all irregular shaped fields, and possess superior advantages to all others in the ease and quickness with which it can be regulated to sow any desired quantity of Grain per Acre, while the draft upon the horses is twenty-five per cent. lighter, and consequently with the same labor, can seed one-fourth more ground per day than with most other machines now in use. The objection so common to Drilling Machines of becoming Choked if the seed is not perfectly cleaned, is entirely obviated in the Simple and Peculiar construction of this Drill, as white

caps and short straw will not interfere in the least with the regular distribution of the seed. It is warranted to distribute the seed evenly; to sow and quantity per acre commonly sown broadcast; to not cut or break the grains; to be well made with good materials and durable with proper care.

Having sold about 400 of the above Drills the past season, all of which met with the unqualified approbation of the purchasers; and after careful and thorough experiments, which have resulted in Still Greater Improvements, we now feel warranted in saying that Moore's Patent Seed and Grain Planter improved, is superior to any other machine for the purpose, now in the market.

Having made arrangements to furnish 1000 of the above Machines for sale the coming Season, we shall be prepared, at all times, to supply orders without delay.

All orders addressed to the undersigned will warrant prompt attention.

LEE, PERCE & LEE.

August, 1852.] *Ercildoune P. O., Chester Co., Pa.*

MYERS' CHEMICAL ANIMAL MANURE.

That of offering to the public a Manure which comprises all that could be wished—its cheapness and surprising effects in producing larger crops in any kind of soil—is lasting and enduring qualities.

The subscriber offers this Manure to the public with a full knowledge of its powerful effects upon ground where used. This Manure must take its precedence above all others; its adaption to all kinds of soil, and every particle of fertilizing properties being preserved in the mode of manufacture, render it at once cheaper than any other manure used for all kinds of crops. Its effects are wonderful. A supply always on hand.

WM. MYERS.

Seventh Street near Germantown Road, Kensington, Phila.

READ THE FOLLOWING CERTIFICATES

GERMANTOWN, October 8, 1851.

To Mr. Wm. Myers—Sir—Having tried your Chemico-Animal Manure upon potato ground, this season, I find it produce one-third more and larger potatoes than the best horse manure in the same ground.

WM. K. COX.

The following additional certificate just received, speaks for itself. WOODBURY, N. J., 10th mo 20th, 1851.

I have used upward of 1000 bushels of WM. MYERS' ANIMAL MANURE, on corn, potatoes, turnips, melons, and some other crops during the present season, and am satisfied that it is an economical and powerful manure, for turnips, radishes, and other root crops—my experience has shown it to be especially valuable.

DAVID J. GRISCOM.

SPRING FIELD FARM, Cecil County, Md.

Mr. Wm. Myers—Dear Sir—I manured with your Chemico-Animal

Manure about 38 acres of the poorest land on my farm, and got half in Oats, and the balance in Corn. Although it was got in quite late, and the Season very unfavorable for the Corn crop generally, yet notwithstanding, I can say that it is decidedly the best Corn I ever raised, although I have farmed for 20 years, and have had good Corn land, and Manured well, as I thought, in the old way. While my neighbors' Corn was quite yellow and leaves curled up with the drought, mine was green and growing rapidly; therefore, I consider it one of the most valuable manures I ever used, and shall take pleasure in recommending it to my neighbors and others.

Yours respectfully,

E. M. SEELY.

SIDLE'S HUB, AUGUR AND BOX REGULATOR.

THE subscriber residing in Dillsburg, York county, Pennsylvania, has invented a new and improved Augur for the boring of hubs, and setting the boxes of wagon, carriage and other vehicle wheels for which I have obtained letters patent.

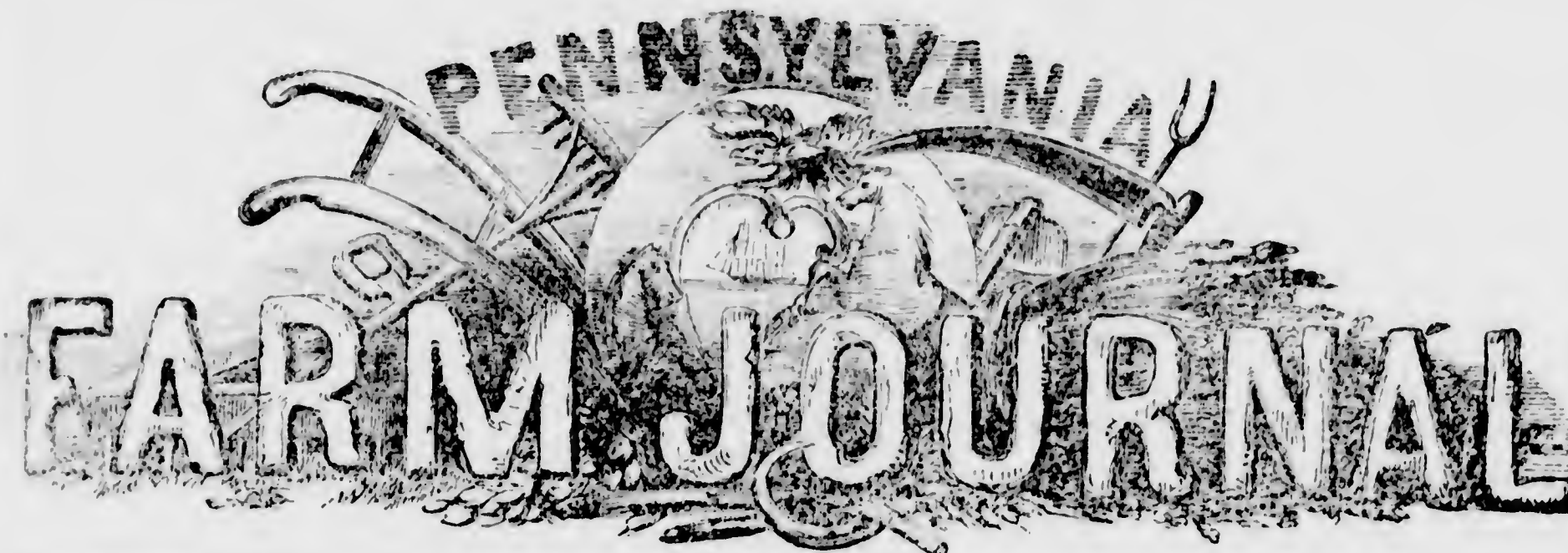
The Augur will bore both ends of the hub at the same time, or either separately—and is the most useful and important invention of the age for inserting wagon boxes and the only Machine in existence by which they can be inserted exactly true—and is so perfectly simple in its construction, and constructed on such just mechanical principles, that it cannot possibly get out of repair.

With this Augur a set of boxes can be inserted in a few minutes—where under the old system it requires hours to perform the same amount of work.

Persons wishing to purchase Territory or Shop rights will please address the subscriber, who will sell on terms that will enable the purchaser to make money.

Dillsburg, April, 1852—tf

HENRY SIDLE.



VOL. 2. WEST CHESTER, PA., DECEMBER, 1852. NO. 9.

THE FARM JOURNAL.

A. M. SPANGLER, EDITOR.

AGENTS.

THE FARM JOURNAL may be had at the following places:—

W. B. ZIEGER, South 3d, St., principal Agent for Philadelphia.
W. H. SPANGLER, - - - Lancaster, Pa.
B. F. SPANGLER, - - - Columbia, Pa.
Geo. BERGNER, - - - Harrisburg, Pa.
H. MINER, - - - - - Pittsburg, Pa.
J. R. SHRYOCK, - - - Chambersburg, Pa.
H. M. RAWLINS, - - - Carlisle, Pa.
A. L. WARFIELD, - - - York, Pa.
WM. DOMER, of Altoona, Blair County, is our authorized agent for Blair and Centre counties.
A. E. BRADY, Cumberland and Perry counties.
JOS. PRESTON, Keannett Square, for Chester and Delaware counties.
JONATHAN DORWART, Lancaster county.
SAMUEL H. WOOD, of Norristown, for Montgomery and Bucks counties.
And of Booksellers generally.

AGENTS FOR THE JOURNAL.

We are desirous of securing one or more competent agents in every county in Pennsylvania, to canvass for the *Farm Journal*. Our terms are liberal, and we are assured by well-informed friends in every portion of the State, that competent and active agents could not fail to succeed well. We therefore invite persons desirous of taking agencies to address us (post paid) on the subject; furnishing us with satisfactory reference, and stating in what particular county they are desirous of canvassing.

To prevent mistakes in consequence of the change noticed in the following articles, communications, advertisements and letters to the Editor, will be addressed post paid to the

"Editor of the *Farm Journal*,

West Chester, Pa."

And all letters on business of the Journal, subscriptions and money transactions, will be addressed post paid to

"BOWEN, MEREDITH & Co.,
West Chester, Pa."

SAMUEL H. WOOD, of Norristown, has been appointed the General Agent for the *Farm Journal*, for Montgomery and Bucks counties. He is authorized to solicit subscriptions and collect monies due from subscribers and advertisers. The friends of agricultural progress, will confer a favor on the publishers, by rendering to Mr. Wood such facilities as are in their power.

Subscriptions will be received and copies of the *Farm Journal* may be had at all times, of Mr. Wood, at his residence, corner of Swede and Marshall sts., Norristown, Montgomery county.

To Correspondents.

We shall be obliged if our correspondents will send in their communications early in the month. None later than the 20th will be in time for the current number. This regulation is necessary to secure timely issue. Several now on hand, shall appear in our next.

We commend the prize essay, on "abortion in cows," to the attention of our readers. It is one of the most valuable and practical articles that we have seen for a long time.

Poultry Agency.

Within the past twelvemonth, we have been literally flooded with orders for Shanghaes and other improved fowls, which orders we have endeavored to have filled; not from our own stock, but from other sources. As this demand has, for some time past, been largely on the increase, and as our future residence will be in Philadelphia, we here take occasion to announce that we have made arrangements to supply, at moderate prices, every variety of fowls now in demand, and that we pledge our word to pay the most scrupulous attention to the purity of any we may send to those who feel inclined to favor us with their orders. Letters addressed to us at C. Rogers' Seed and Implement Store, No. 29, Market Street, Philadelphia, will meet with prompt attention.

Bucks County Exhibition.

In company with several agricultural friends, we attended the annual Exhibition of the Bucks County Agricultural Society, held at Newtown. The high reputation which these exhibitions have always maintained, prepared us to expect something fine, and in this we were not disappointed.

On entering the enclosure, our attention was immediately directed to the exceedingly neat and convenient arrangements for the exhibition. Everything was in order, and every officer at his post, ready for the discharge of his appointed duties. Near the western end of the enclosure stood the principal tent or canvass, beneath which, fruits, vegetables, flowers, and articles of domestic manufacture, &c., were exhibited. This structure was 160 feet long, by about 40 feet wide, and was commodious, neat and tasteful. On the northern side of the enclosure, the sheep and swine pens were arranged. The cattle were not kept in stalls, as is usually the case, but were fastened to pannels, so arranged as to have an avenue of at least twenty feet between, thus enabling the spectators to view them most advantageously. Another commendable feature in the arrangements, was a large structure, intended for the accommodation of the ladies, exclusively. Beneath its spacious roof, comfortable seats were placed, so that the ladies, when fatigued, could rest themselves in the shade. The fencing, pens, &c., were whitewashed, giving to the whole enclosure an appearance at once beautiful and neat.

The attendance was numerous for a county exhibition. At least fifteen hundred persons were on the ground during the day, a large proportion of whom were ladies.

The limited time allowed us for observation, prevented as full and complete a report of the exhibition as we desired and intended giving. We saw enough, however, to satisfy us that the farmers of Bucks county were doing their duty.

The display of fruits, especially that of apples, (for which Bucks county is famous,) was very fine. The different varieties of apples exhibited, were choice, not merely in point of size, but also in flavor. Amongst them we notice some superior specimens of the Fall Pippin, Flat Sweet, Royal Sweet, Fallwater, Maidens Blush, Red and White Doctor, Newtown Pippin, Farmer's Fancy, Summer Pearmain, Cider Apples, Cornell's Fancy, Jersey Pippin, and a host of others, the names of which we do not recollect. The other varieties of fruit, in season, were also fairly represented.

The display of articles of domestic manufacture did great credit to those engaged in getting them up, and we earnestly commend the example of the ladies of Bucks county to those of other counties in our State. We were so pressed for time, that we could not more than glance at this department, although

the many elegant and useful articles it contained merited a long and careful examination. Our attention was, however, directed to some beautifully executed colored crayon sketches and paintings, executed by the daughters of our friend, William Stavelly, Esq.

The display of cattle was very fine, embracing some choice animals, all in excellent condition. Messrs. Adrian and J. C. Cornell exhibited a large number of fine animals, from their celebrated farms. There was a large number of other exhibitors of stock of various kinds; but having had the misfortune to lose or mislay the notes taken on the ground, we are compelled to forego the pleasure of presenting their names.

The display of implements was excellent. Amongst them were some very ingeniously constructed ones, from the manufactory of Mr. Buckman, of Pineville. We hope to present illustrations of some of these shortly. In concluding this hasty sketch, for which we have been compelled to rely solely upon our memory, we cannot forbear an expression of thanks for the many kind attentions extended to us by our friends in Bucks. At the same time, we congratulate them upon the gratifying success which has hitherto attended their efforts to build up the cause of agriculture in their county.

Montgomery County Exhibition.

Although pressed by engagements on every side, we could not resist the temptation of visiting our friends of Montgomery county, at their annual Exhibition, and we are happy to say that our visit was, as usual, a source of much pleasure to us. The excellent arrangement of the Exhibition grounds, a detailed account of which was given in the Journal last Fall, have been materially improved, and the character of the Exhibition kept pace with the other improvements. We thought it much better than that of last year, in many respects. The display of cattle was certainly better, many of the animals being of superior character. The largest contributors in this department were the Messrs. Jones, of Conshohocken, whose display of dairy cattle, was certainly creditable to them. As the notes of this exhibition, taken by us, were contained in the same book with those of Bucks, Berks, Philadelphia and other counties, (which book we have lost,) we hope our friends will excuse the general character of our brief description.

The display of implements was not as fine as last year, although a number of excellent ones were exhibited, but the meagreness of this department was amply compensated for by the quantity and excellence of the articles exhibited in the department of domestic manufactures and fancy articles.

The rooms in the large building, appropriated to these articles, were filled to overflowing, with ingenious, elegant and useful articles, attesting the taste

of the ladies, and ingenuity and skill of the mechanics of Montgomery county.

The display of fowls was not equal to that of last year, although a few of the cages contained creditable specimens, while that of sheep and swine was much finer.

The attendance was larger, and the warmest interest manifested in the examination of the various animals and articles on exhibition. The Address of the Rev. Samuel Aaron, delivered on the afternoon of the last day, was, with one or two trifling exceptions, sound and practical, and was listened to with marked attention by a very large audience. We have to thank our friends in Montgomery for many kind attentions, and only regret that it is not in our power to repay their kindness by a more complete report than this.

Berks County Exhibition.

Anxious to witness the first efforts of the stout farmers of Berks, to awaken an increased interest in behalf of Agriculture, we paid a visit to the beautiful and thriving city of Reading, on the occasion of the first Exhibition of the Berks County Agricultural Society. The arrangements for the Exhibition, although not as complete as those of Bucks and Montgomery, were, notwithstanding, all that were needed. The enclosure for cattle, implements, &c., was situated in the northern part of the city, and quite a number of excellent cattle were exhibited, amongst which were some belonging to Wm. Robison, of Farnace, Mr. Bennedum, of Womelsdorf; Mr. Keim, of Reading, and others.

Of Horses, we thought the display better. Several very fine Stallions were exhibited, as well as a number of fine brood mares, geldings, &c.

The implement department was pretty well represented, the principal contributors being the Messrs. Keim, of Reading.

Of Fowls there was a very creditable display, showing the interest felt in the county in this department of agricultural economy.

But the glory of the Exhibition consisted in the Horticultural contributions, and the department over which the ladies presided. In the first the display of fruits and flowers was very fine. Many of the specimens were seedlings of merit, and deservedly attracted great attention. We hope our friends in Berks will enable us to give greater publicity to those fine seedlings than they have hitherto attained.

The ladies did their part nobly. The specimens of worsted and needle work were numerous, and many of them very fine; and in several other departments their handiwork was plainly visible.

We congratulate the friends of agriculture in Berks, upon the bright prospect before them. Another year will enable them to stand side by side with Bucks, Montgomery, Chester, and other counties, which have hitherto maintained the lead.

Improved Poultry.

In another part of the Journal will be found the report of the first Exhibition of the Pennsylvania Poultry Society, which will doubtless be read with interest. Ever since the establishment of the Farm Journal, we have endeavored to impress upon the minds of our farmers the importance of greater attention to the rearing of fowls; and we are pleased to observe that it is at length becoming a matter of serious inquiry with them.

To the most casual observer it must be apparent that the raising of poultry will very soon become a highly important branch of the farming interest. The steadily advancing prices of beef, pork, &c., together with the fact that our population is increasing more rapidly than the supply of these meats, all point clearly to the fact, that at no distant day, the supply will not equal the demand, and that as a consequence, none but persons of large means will be able to indulge in their use so frequently as is now the case. With the rise in the price of beef and pork, there must be a corresponding rise in the price of poultry; and if at present prices it can be made profitable, is not the prospect ahead encouraging? We think so. During the past month we have had frequent occasion to pass through the Philadelphia markets. Curiosity prompted us to inquire the price of poultry. We found that a pair of ordinary fowls (which, clean dressed, would not have weighed more than five pounds) commanding from eighty-seven cents to one dollar, while larger ones were sold at correspondingly high prices. The demand appeared to be equal to the supply, and we were informed that purchasers for the New York market were anxiously awaiting an opportunity to secure every fowl that could be had, even at these prices. Now, if the common Dung Hill chicken at six months old, weighing two or three pounds cleaned, will command eighty-seven cents per pair in Philadelphia, would not the larger varieties—the Shanghai, Cochon China or Chittagong—weighing, at the same age, twice as much, command double the sum? Simple arithmetic will demonstrate this to the most dull comprehensions.

But, cries one farmer, "the prices for these *fancy* fowls are too high now, we will go upon the good old system a little longer, and when we can buy at the prices we now pay for the little Dung-hills, it will then be time enough to stock our yards with them." "Penny-wise and pound-foolish," economy. Five years ago the same thing was said, and yet good fowls cannot be purchased at any lower rates now, than then. Again, the idea that the Shanghaes are mere *fancy* fowls, intended only as an ornament to fanciful gentlemen's poultry yards, is a wrong one. We are perfectly satisfied of the fact that they are the most profitable of all fowls, and that they must, from the very necessity of the case, eventually supersede every other upon the premises of our farmers. There are those who

assert that they are not hardy enough for our climate. The intense cold of last winter ought to satisfy the most incorrigible skeptic upon that point. We can give a case in point, during that bitter cold weather, one night, by some neglect, all of our little stock of fowls were prevented from securing their usual places of shelter. In the morning, the Bantams were frozen stiff, while the Shanghaes, with a single exception, escaped unhurt.

We might go on and enumerate what we conceive to be their many other good qualities; but having done so on a former occasion, we will close our remarks by simply stating, that we conceive it to be the interest of every farmer who estimates his poultry yard as he should, (and as we think all will do before many years;) to discard the mischievous little Dungs, and supply their places with the stately Shanghaes.

Pennsylvania Poultry Society.

The first exhibition of this Society was held in the city of Philadelphia, on the 24th, 25th, and 26th of November. The display of fowls was highly creditable, embracing some of nearly every known variety. The Shanghae, or Cochin China, however, were by far the most numerous and fine. We were pleased to observe the deep interest felt in the matter, not only by those who were exhibitors themselves, but by the thousands who visited the exhibition.

The expectations of the Society in regard to the extent of the display having been greatly exceeded, the arrangements were not as satisfactory, perhaps, as they would otherwise have been, yet every thing passed off well, and we think augured well for the future prospects of the Society. The following persons were the principal exhibitors:

The principal contributor is Dr. James McClintock, President of the Society. There are others who have contributed many splendid specimens, but Dr. McClintock's are the most numerous. Among these are Samuel C. Radford, Dr. James T. Crabbe, David Davis, and R. A. Smith, of West Philadelphia; Reuben Hagy and Samuel A. Bumstead, of Roxborough; Wm. Chancellor, L. Wister, R. Fraley and Harman Osler, Germantown; Richard Cartwright, North Penn; F. G. Wolbert, Frankford; Peter Barker, Penn District; Stacy Wilson, Kensington; William Leonard, Dr. H. J. Brown, George Simler and Wm. Krouse, Philadelphia city; and Aaron Clement, John B. Perry, R. Wister, Jr., and James Kellen, Philadelphia county; Dr. D. L. Heist, Blue Bell, Montgomery county, and John S. Lippincott, Mount Holly, N. J.

For Shanghae, or Cochin China, over one year old, a first premium was awarded to J. S. Lippincott, J. B. Perry, and Dr. James McClintock. The second premium was awarded to Robert Purvis, M. W. Hes-son, Dr. McClintock and William Leonard.

Shanghaes under one year old, first premium to James Gillespie. Second premium to Robert Purvis and Dr. James McClintock. Third premium to R. H. Smith, J. M. Williams and S. C. Radford.

Special premiums to Dr. James McClintock, for 6 pullets; R. H. Smith, 1 stag and 4 pullets; J. W. Williams, 1 stag and 2 pullets; M. Kauffman, 2 stags; Dr. James T. Crabb, 1 pair 5 months old.

White Shanghaes, first premium to Harman Osler. Second premium to W. W. Clarke. Special premium to S. A. Bumstead and R. Fraley.

Gray Shanghaes or Chittagongs, first premium to R. Fraley. Second premium to Dr. J. McClintock. Third premium to Aaron Clement.

Black Spanish, first premium to Dr. H. J. Brown. Second premium to G. Drayton.

Black Polands, over one year, first premium to William Leonard. Second premium to M. Crouse. Under one year, first premium to Samuel Radford. Second premium to R. Wister.

Dung Hill, first premium to Stacy Wilson, (cross of the Chittagong and common fowl.)

Capons, first premium to J. S. Lippincott.

The premium for the best and largest collection was awarded to Dr. J. McClintock.

Pigeons—Blue Croppers, first premium to John B. Perry. White Rough Necks, first premium to P. Barker. Buff Carriers, first premium to B. Kneass. Nuns, first premium to B. Kneass.

Turkeys—First premium to Aaron Clement. Second premium to James Gillespie. Special premium to S. C. Radford, for a gobbler.

Geese—White Bremens, first premium to M. Crouse.

Musk Ducks—Very superior—first premium to L. Wister. The White Ducks of William Leonard and John McGowan are of equal quality. Common Ducks, first Premium to S. C. Radford.

Guinea Fowls—First premium to Reuben Hagy. Second premium to William Leonard.

Bolton Greys—First premium to Dr. McClintock.

Game—First premium to L. Wistar. Second premium to F. G. Wolbert.

Black Bantams—First premium to Dr. McClintock.

Seabrights—First premium to L. Wister.

Where are the Berkshires?

We have greatly regretted that this very valuable breed of Hogs has gone so out of fashion, and become so scarce. There is a fashion or periodical excitement in the matter of farm stock, as in other things. New breeds are sought after with great eagerness, and in the thermometer of public opinion, and under the excitement of their being new, are often run up far beyond their real value. When the fever subsides they as often fall far below it. This is the case, we think, with Berkshire Pigs. We have reared and fed a great many of this breed, and consider them the very best we ever owned, for certain purposes. They are not exactly the farmer's hog, as they

do not make sufficient lard or fat, but they would be more properly called the citizen's. The fat and lean are well mixed throughout the whole carcass, even the side pieces, often rendered up into lard, have the desired mixture of a "streak of fat and a streak of lean." Their hams are *plump* and *juicy*, and just the size for the housekeeper in the city; none too large for the table. We slaughtered one fall, sixteen of pure blood, weighing from 150 to 250, and the most beautiful lot of meat we ever had, juicy, of a fine red color, and none of it too fat to be eaten. The Berkshires will seldom attain the weight of our Chester county breed, but we always considered, from their being so very easily kept, that the same food would make more weight in the aggregate, than any other breed. Some objection used to be made to them on account of their appearance in the market, the skin showing the black spots, and not so white as the white haired hog. This prejudice, however, would soon pass off, as purchasers became acquainted with the superior quality of the meat.

Do any of our readers know where any *pure* Berkshires can be obtained.

Subsoil Plowing.

In our monthly notice of work for the Farm, this is recommended; but as we consider it of the greatest importance, will add, that we have proved it so in our own practice. The best subsoil plow we have used, we consider to be Roger's, and which can be purchased at his establishment in Philadelphia, and at the Agricultural Warehouse in West Chester. It has several advantages, among which are that it stirs up the *whole width* of the furrow, and is easily regulated by the one handle, and which enables the plowman to walk on the hard ground, or land side, instead of toiling through eight or ten inches of loose earth. An engraving of it was given in one of the former numbers of the Farm Journal. Subsoiling is one of the improvements of the day; so simple in its theory, and yet so effectual, that it must necessarily become general, with good as well as bad farmers; the object of both being to extract from the soil remunerating crops. The only wonder is, that it makes its way to public attention so slowly. There is a mine of wealth, laying dead and unproductive, beneath our ordinary surface plowing, which only needs stirring to the vivifying action of sun and air, to be immediately available for the use of crops. The evidence in the case is cumulative and positive. It has been fully tried in various places, with satisfactory results, and the reason of the thing is so obvious, that argument would seem superfluous. To be sure, it involves additional expense. This is not so important as the question whether that expense is a profitable outlay, and whether it will not return a compound interest. The simple fact of an additional outlay for an extra team, is not of *itself* an objection to meet the whole case.

To be on the safe side, let two or three farmers join in the purchase, and try a part of their fields intended for corn next spring, with the subsoil plow, and we have no doubt as to the results. The advantages of deep digging and trenching, for the vegetable gardens have been observed by all. The same principles and practice will apply to field culture. The nearer we can approximate on the farm, to the culture of the garden, in the depth of soil and fine pulverization the better the success.

Trees and Flowers of Japan.

Now that the long talked of expedition to open the ports of Japan to the commerce of the country has sailed, it may reasonably be expected, that the botanical treasures known to exist in that hitherto forbidden ground, may soon be brought to light, and the country opened to botanical exploration. When we consider that the climate is similar to our own, and that many, perhaps most of the Japan trees and plants are hardy here, and that some of our most beautiful specimens are from that country, it is fair to presume that a rich harvest is in store for our Botanists and Florists, in the event of a treaty. We have already, *Paulonia-Imperialis*, *Salisburia-Adiantifolia*, *Cydonia Japonica*, *Ancuba Japonica*, *Cryptomeria Japonica*, *Sophora*, *Deutzia Scabra*, and *Gracilis*, and many others, all perfectly hardy; and the *Camellia*, which there grows wild and to the size of a tree; *Anemone Japonica*, and others which stand the open culture in our Southern States; all valuable acquisitions. The Japanese are also said to be enthusiastic and skillful florists, and particularly successful in dwarfing all kinds of trees, training and clipping them into fantastic shapes, and have been very successful in grafting and dwarfing the pine family. Like the Chinese, whose standard of beauty in the human foot is having it artificially compressed into the smallest possible size, so the Japanese consider the production of a dwarfed tree or plant, as the evidence of skill, and model of beauty. The Botanical Register gives an account of a dwarf tree being exhibited at Jeddo, in a lacquered box, with *branches*, occupying only *two square inches*. Uncivilized as we call them, it is more than probable we shall get many new ideas and learn some useful hints, even from the Japanese. We observe the expedition carries out a locomotive and railway cars, Magnetic Telegraph, and many other productions of our superior civilization, calculated to "astonish the natives." It also numbers about 4000 men, and over 300 guns, mostly heavy ordnance. The steamers mount Paixhan shell guns, mounted on revolving trucks, so as to sweep the horizon, and discharging shells of 68 to 120 lbs. each, and long 42's."

Such furniture as this, is intended, and no doubt will succeed in making a very decided impression, and we doubt whether the Japanese will be able to resist

such a forcible demonstration of our superior intelligence and civilization will be exhibited by those long 42's. We presume the intention of the Government is to show them the operation of the Telegraph, &c., first, and if they are not convinced, to operate with the Paixhans.

Much good as will doubtless result from commercial intercourse with that country, it is greatly to be hoped a resort to force may be unnecessary.

BOOK NOTICES.

We have before us, the first number of the IV vol. of the Wool Grower and Stock Register, published at Rochester by D. D. T. Moore, and edited by T. C. Peters, single copy 50 cents, and at reduced prices to clubs. Devoted as the agricultural Press necessarily is, to a wide range of topics, we are pleased that such important interests of the country, as wool growing and rearing of stock are to have so able a special advocate as the above paper. It is printed in neat style, with good illustrations, and the editor is evidently at home in his treatment of his subject. We think such a paper is wanted, and wish it the best success.

MOORE'S RURAL NEW YORKER, a weekly newspaper, published at Rochester, N. Y., and conducted by D. D. T. Moore. This is well supplied with original communications on agricultural subjects, and illustrations, combined with a variety of literary and scientific matter, and news of the day, adapting it to the home circle and fire side of the farmer especially. It is very ably conducted, and has a wide circulation.

HORTICULTURIST.—This well known periodical, has been sold to J. Vick, jr., of Rochester, and will hereafter be published by him at that place. He has secured the services of P. Barry as editor, well known as an extensive Nurseryman, and author of one of our best works on Pomology. We predict for the Horticulturist under its new auspices, a successful career. It could not have fallen into abler hands.

NEW YORK AGRICULTOR.

A weekly Journal in large Newspaper form, under the above title, is about being published by A. B. Allen & Co., N. York; also the NEW YORK FARM AND GARDEN, a monthly Journal by the same parties. We also observe "THE COUNTRY GENTLEMAN" announced as forth coming, published by Luther Tucker, a weekly publication, devoted to Agriculture and the Rural arts generally. These signs of the times, indicate a spirit of enquiry abroad in relation to agricultural matters which is healthy and encouraging. The more of such periodicals the better. Supply creates demand, and there is yet a wide field to be occupied. 'Tis but a few years since there were but two or three agricultural papers in the Union, and now there are probably a dozen in New York State alone.

Raising Calves.

For the following receipt for raising calves, we are indebted to John Lac, formerly an English Farm Manager, but for many years past, has had the entire charge of the Durham stock and farm attached to the extensive boarding school institution, of A. Bolmar, of this borough. It is one of those short, but valuable and practical receipts which, based on long experience, both here and in England, is calculated to confer a large amount of good. Many of us, with a fine fall calf, have allowed it to go to the butcher, on account of the expense and uncertainty of getting it safely through a long winter. J. L. informs us that in England, fall calves are preferred, for raising in this method, and will bring £2, while a spring calf would bring but 25 shillings. The mixture promotes health, and keeps them in good thriving condition through the first winter, and at a year old, they are larger and stronger than those dropped in the spring. He has never known them to scour while taking it.

RECIPE.—Mix one pint flaxseed with 4 gallons water. Simmer over stove for 2 or 3 hours; when it will be found quite ropy, and on getting cold, will be a thick jelly. Give a calf, according to age, from one pint to a quart twice a day, mixed with a little skimmed milk or Indian gruel. When it gets a few weeks old, the milk may be omitted, if not convenient.

Northumberland Agricultural Society.

We are pleased to observe that our friends in Northumberland held their first Exhibition last month, and that it was of the most encouraging character. Every department was well represented, and the interest in the future prosperity of the Society, is general, throughout the country. Many difficulties were encountered in the getting up of the Exhibition, but with indomitable energy, these were all triumphantly surmounted, and the result was a display at once gratifying and encouraging. We had fully intended being present, but other engagements prevented.

We hope and believe that the sturdy farmers of Northumberland will not stay their laudable efforts, but press on the good work they have so triumphantly begun. We have not the space for a more extended notice, which we can but regret. The hope was indulged that we should be favored with a general report from the Secretaries of the different Societies, in time for the present number, but in this we have been disappointed. Our friends in the various counties in which Exhibitions have been held, which it was not in our power to attend, will, we trust, bear with the meagre reports we are enabled, under the circumstances, to present.

"Bob, is that dog a hunter?"

"No, he's half hunter and half setter. He hunts bones when he's hungry, and sets by the fire when he's satisfied."

Wintering Stock.

Mr. Editor.—Although there was a good crop of hay secured the past season, and considerable old hay summered over, the farmer should, nevertheless, practice strict economy in feeding it out to his stock. Our cattle and sheep came to the barn about three weeks earlier than usual, which will make a long feeding time, unless the spring opens more favorably than usual, for getting our stock to pasture. Most farmers have more or less coarse fodder, such as poor hay, corn butts and the like, which, some make it their practice to feed out, exclusively, the first part of the winter; but I have practised differently, believing that stock of all kinds require as good keep and attention, the first part of the winter, as any time. Cattle and sheep like a change in their diet as well as man, and when kept in good condition, they seem to relish a foddering of meadow hay, corn-stalks, and straw occasionally; but if fed entirely on such fodder the first half of the winter, they will lose in flesh, and be apt to come out in the spring in a mean condition, in spite of English hay. I know that some farmers say, their cattle won't eat poor hay, unless they starve them to it, so they feed out their corn-fodder first, then their swamp and meadow hay, and feel relieved when it is gone. I think corn-fodder worth as much as common stock hay when fed in connection with it, but to compel cattle to live wholly on such fare, is absolutely cruel, as it makes their teeth sore when fed for a length of time. A better way is, to give cattle one foddering a day of corn-butts, and that at the last feeding at night, and if they have a pretty stout allowance given them, they will eat it up nearly clean before morning. Some suppose, all that is necessary in wintering stock is, to place a sufficient amount of fodder before their cattle and sheep, no matter when, how, and where; but this is a mistake. Every one who has the care of stock should make it his practice to feed regularly, for the animal system requires it; and instead of throwing large, solid flakes of hay before them, it should be carefully pitched off the mow and well shaken, to deprive it of dust, and laid down lightly and temptingly by them in small quantities, and fed as often as they eat it up clean. The number of times cattle should be fed during twenty-four hours, depends somewhat on the quality of the fodder; the poorer the hay, the better must be the attention. Some farmers will make their stock thrive as well on meadow hay and rough fodder, as others will on English hay, and it is said of them, "they have a peculiar knack to make their stock look well;" now, this "knack" consists in good attention. Stock of all kinds, should be fed under cover through the winter, in cribs or racks, instead of feeding in the yards or out upon snow-drifts, to be trodden under foot, or blown away by the north-west wind. But with all our care and attention in feeding, our stock will not thrive well unless we provide comfortable barns and stables, and pay attention to the cleanliness of their food; I have been into barns so open, that a person would be in some danger of losing his hat on a windy day, and so filthy, that one could hardly move without coming in contact with the filth of hens, turkeys and geese. It is useless to describe the appearance of stock under such treatment. I have often wondered how a man could turn up his nose on observing a mote in butter, or sit and toast his shins before the fire, when at the same time, his cattle are shivering in his rickety barn, and his fowls roosting over their heads, without thinking of their miserable condition. Many farmers are negligent with regard to water for their stock, of which there should always be a good supply

in the yard, either by a spring, or a well with a good pump. I wish to say here, I have used the chain pump, and for supplying water for a stock of cattle; I consider it second only to running water. There are some good farmers who keep their cattle in the barn most of the time, only letting them out long enough to drink, and to cleanse their stalls; but I doubt the utility of the practice, believing it is for the health of the animal to enjoy the influence of the sun and air, in moderate weather, and it is also necessary that they have exercise; but in cold, stormy weather they should be kept under cover.

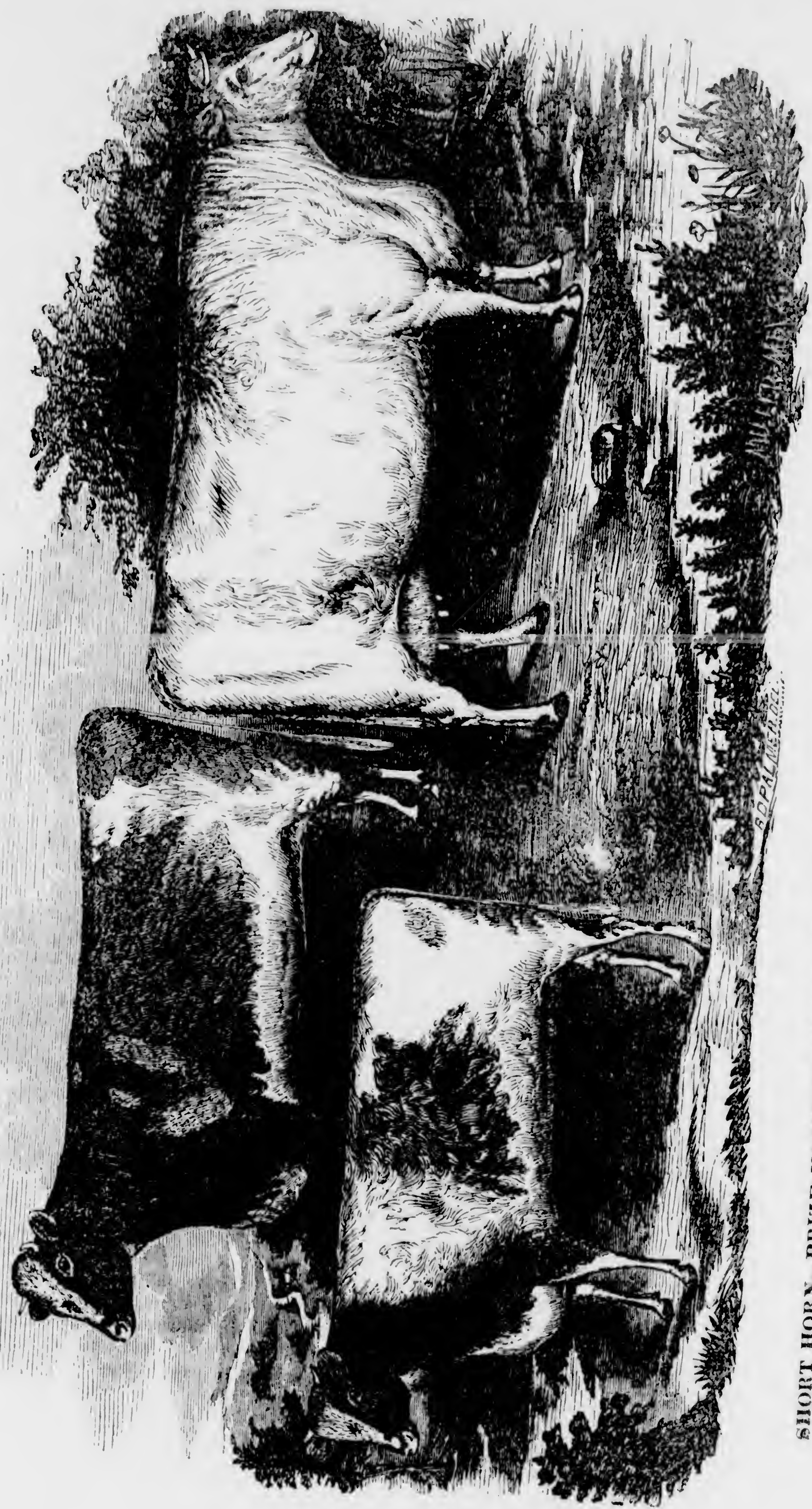
Farmers, as a general thing, pay too little attention in feeding, and selecting that breed of cattle and other farm stock which is nice and hardy; those who are more particular in these respects, are they who get the greater profit for their stock.—E. M. DUNBAR.
—Boston Cultivator.

Cut Feed for Farm Stock.

The advantages of cutting fodder for stock, seem to be well settled, though by no means generally appreciated. Farmers are proverbially slow to learn, and it always a difficult matter to overcome their prejudices in favor of old habits. When a novel system of culture is proposed, they are sure to raise the cry of "book farming," and every new fangled implement they consider a design upon their pockets. The straw-cutter is not a recent invention, but it had not acquired much popularity, until within a few years. Its merits are such that we are glad to see it becoming more and more common, and we believe that the day is not far distant when it will be deemed as essential as a plough to every cultivator of a dozen acres.

It costs a farmer much hard labor to secure fodder for the winter, and it is his duty, as well as his interest, to make it go as far as possible, by giving it out in that form in which it will be most closely eaten up, and will do the animals the greatest amount of good. It would be thriftless in the extreme for him to waste what he has purchased by so many hours of patient drudgery. He ought to study economy in all things,—in the barn as well as in the kitchen. What he saves in this way is clear gain. For instance, if, by a little management, he can keep his stock on straw and cornstalks, and so have three tons of hay to sell in the spring, he adds something like thirty dollars to his yearly profits—enough to buy him a new suit of clothes. We do not wish him to stint his cattle in their rations, for that would be miserable policy—costing him more to bring them up in the summer than it would have done to keep them all the time in good condition.

The straw-cutter is an admirable invention, and its use in the barn or stable should never be dispensed with. Cattle and horses will eat "cut feed" with a vastly improved appetite, and it will digest, (given in this form,) much more readily than otherwise. We recommend the cutting of fodder for all kinds of stock—after a thorough trial of this mode of feeding—certain as we are that animals can thus be kept at considerable less cost, the food does them more good for being cut, and they will thrive very much better upon it than upon the old fashioned mode, while a much less quantity of material will be required to satisfy them. In point of economy and convenience both, those who have yet to try the experiment, will find that a palpable saving can be made at once, and continually, by adopting this means of feeding stock.
—New England Cultivator.



SHORT HORN--PRIZE HEIFERS, OWNED BY S. P. CHAPMAN, Mount Pleasant Farm, Clockville, Madison County, N. Y.

Subsoil Ploughing.

Plowing is one of the most important branches of agriculture—necessary even to its existence. The improvement of practical agriculture, is in proportion to the improvement made in the art of ploughing. The principles which chemistry has revealed, may be made abortive—their results defective—by improper plowing.

The object to be obtained by plowing is threefold: 1st, to pulverize the soil; 2nd, to expose a great depth of soil to the action of the atmosphere; 3rd, to hold the many fertilizing substances brought down by rain and snow and absorbed by the soil.

It becomes necessary to pulverize the soil, so that the roots of plants may extend in all directions freely, and to a great distance. The atmosphere coming in contact with deep and well pulverized earth, imparts heat and moisture, and, acting upon the soil, assists in liberating its salts, and in bringing it into that condition which is the best fitted for the growth of crops.

A small proportion of water during rains more or less heavy, sinks into the soil when shallow plowed; such soil is sooner affected by the drouth, and is dry at a greater depth than deep earths, as may be shown by an examination of shallow and deep plowing in a time of drouth. Common plowing does not reach sufficiently deep to accomplish all that is desired; but deep plowing and its good results are effected by following the common plow with the subsoil plow. It loosens the subsoil, and leaves it in that state that roots can enter it, that air can permeate it, and water be absorbed by it. A subsequent plowing, with the common plow, can then easily intermix the surface and subsoil. Plowing may thus be effected sixteen to twenty inches deep.

I have found from frequent examinations of the roots of corn, wheat and oats, during the last four or five years, that they are generally inclined to grow downwards, some of the roots even straight down until they reach the subsoil, then after penetrating an eighth or a fourth of an inch, turn horizontally. I traced a root of a wheat plant which had extended sixteen inches nearly perpendicular, in less than 3 months after it had been sowed, on ground previously subsoiled. It is interesting to take the spade and examine the roots of crops, at any stage of their growth, in order to compare the effects of common or shallow, with those of subsoil plowing. To see the roots of corn pushing boldly downwards eighteen inches in search of food, eight inches of which has never been penetrated except by the noble oak and hickory, and occasionally by the searching taproot of clover, as I have witnessed the past summer, affords pleasure as well as instruction to the farmer, who takes pride in fat swine or stall-fed oxen.

I subsoiled three-fourths of an acre through the middle of an eight acre lot, in June, 1846, for wheat. The field was plowed but once, and cultivated several times previous to sowing the wheat. I am not able to give the result accurately, in consequence of cutting the grain with a reaper, by which, I was unable to keep the wheat separate. The difference was quite perceptible at the time of harvesting; it stood thicker on the ground, and the berry was of a better quality than the adjoining, on ground not subsoiled.

In May last, I subsoiled one and a-half acres for corn, in a field containing six acres. It had been a timothy meadow for four years. The soil was clay loam, subsoil a tenacious clay; a part of the subsoiled ground was a swale previously ditched, a part was a ridge, the balance a wet swale, with a compact, impervious subsoil. Twenty loads of unfermented

manure was applied to the acre. It was plowed in May five inches deep, and subsoiled nine inches more.

I saw no difference in the corn until August, which was then very perceptible during the drouth of that month. The corn upon the subsoiled part retained all its beautiful freshness, bearing a healthy perpendicular tassel, and having the appearance through the day of having been refreshed with a shower of rain the previous evening. That on the unsubsoiled parts yielded to the drouth, the tassels drooped and the leaves became dry and rolled. After an examination of the soil and subsoil about this time, with the spade, the difference in the parts became no longer a mystery.

The earth was moist on the subsoiled portion, within a fourth of an inch of the surface; on the unsubsoiled it was dry, to the depth of an inch, the balance below dryer than the former. In the one, the subsoil was filled with corn roots in search of food and water; in the other they were turned aside by the subsoil. The corn on the wet swale was as good if not better than any other portion of the field. Judging from the present crop, I am of opinion that subsoiling this wet swale was an advantage to the crop of one hundred per cent., notwithstanding the objection raised by some, to subsoiling wet land without ditching.

In consequence of an experiment by which I wished to test two varieties of corn, which crossed the field in an opposite direction to that of subsoiling, I only compared three rows of shocks, five rows in each shock, each row of shocks gathered from twenty-one rods of ground. The result was as follows:

No. 1, not subsoiled, gave	- - -	606 lbs. of ears.
" 2, 3 rows subsoiled, 2 rows not	616 "	"
" 3, subsoiled,	- - -	676 "

The subsoiled gave at the rate of 73 bushels to the acre; that not subsoiled, 65 bushels per acre: a difference sufficient to pay for subsoiling. I considered the subsoiled part as having been previously inferior for corn. I aimed to be accurate; if there was any difference in the previous condition of the soil, or in estimating the results of the experiment, it was in favor of the unsubsoiled portion. From the observation of the effects of subsoiling, so far as it has been practiced by myself and others, my mind has become settled in the conviction that subsoil plowing upon most, if not all of the land of this county, will prove very beneficial for corn and all crops usually raised by us.

I may be mistaken, but I fully believe, that subsoiling, thoroughly performed, will prove more profitable to farmers for the outlay than any other one improvement. I have never anticipated much improvement from it, until after one crop of clover. Then I expect a complete preparation of the soil for wheat. It is unnecessary for me to describe with what ease a clover root will penetrate the loosened subsoil, and even go further in search of food, gaining strength with every additional inch of depth, bringing the salts of the lower strata to the surface for its use, and affording by its decay, when turned under by the plow, rich stores of food for wheat. In conclusion, I would recommend subsoiling in the spring and fall, or when the ground is wet sufficiently deep, at any time in the summer. It does well for a summer fallow, if broken up early. It is beneficial to any crop. The expense is about the same as for breaking up sod ground. And finally, if this short and imperfect essay shall persuade one farmer of this county to practice deep tillage with subsoiling, the object of the writer will be attained.—*N. Y. State Agricultural Society's Trans.*

JOHN MALLORY.

STATES.	Acres land improved.	Acres land unimproved.	Cash value of Farms.	Value of farming implements & machinery.	Horses.	Asses & Mules.	Milk Cows.	Working Oxen.	Other Cattle.	Sheep.	Swine.	Value of Live Stock.	Wheat, bushels of.	Rye, bushels of.	Indian Corn, bushels of.
MAINE.	2,030,396	2,515,737	54,861,748	2,284,554	41,721	55	133,556	83,893	123,890	431,577	54,598	9,705,726	298,259	102,916	1,750,056
NEW HAMPSHIRE.	2,231,488	1,140,926	33,243,977	2,314,125	34,233	10	94,277	59,027	141,606	384,756	63,487	8,871,901	183,658	153,717	1,573,670
VERMONT.	2,331,379	1,325,308	30,727,731	2,709,277	61,037	218	146,146	48,497	154,025	919,992	66,278	12,640,248	525,925	176,207	2,032,016
MASSACHUSETTS.	2,133,436	1,222,576	109,076,347	3,209,354	42,210	34	130,099	46,611	83,284	188,631	81,119	9,649,710	31,221	481,021	2,345,490
RHODE ISLAND.	336,187	197,431	17,070,802	497,201	6,108	49	28,698	8,189	80,276	44,296	19,569	1,532,637	49	26,409	539,291
CONNECTICUT.	1,708,917	671,701	72,726,422	1,892,541	20,679	40	48,988	46,988	80,230	174,181	76,472	7,467,490	41,732	600,892	1,788,400
NEW YORK.	12,408,968	6,710,020	534,616,612	22,081,926	447,014	963	931,324	178,909	767,400	3,433,211	1,018,252	73,570,439	13,121,498	4,148,182	15,858,400
NEW JERSEY.	1,075,991	284,985	120,231,311	4,225,303	447,014	4,089	118,736	12,070	80,455	100,488	250,370	10,679,291	1,601,190	1,253,578	8,729,794
PENNSYLVANIA.	8,628,019	6,294,728	407,576,099	14,722,341	330,308	2,259	530,224	61,927	562,195	1,822,337	1,040,366	41,500,053	13,367,691	4,803,100	19,856,214
DELAWARE.	580,862	375,282	18,880,031	510,279	13,832	731	19,248	9,797	24,166	27,503	56,291	1,849,281	482,511	8,066	3,145,533
MARYLAND.	2,797,906	1,826,443	87,178,545	2,463,433	75,684	5,644	8,633	34,123	98,593	177,992	352,911	7,997,634	4,494,680	226,014	11,104,631
DIST. COLUMBIA.	16,207	11,187	216,401,441	40,330	824	57	317,619	104	669,137	130	1,635	7,716,643	17,370	5,509	66,230
VIRGINIA.	10,351,153	15,792,176	7,021,772	7,021,772	272,403	21,480	37,619	89,513	669,137	1,210,004	1,830,743	33,656,633	11,232,616	458,930	35,254,319
NORTH CAROLINA.	5,433,977	15,543,010	67,891,766	3,931,352	148,693	25,259	221,799	27,309	434,402	565,249	1,812,813	17,717,647	2,130,102	229,562	27,941,051
SOUTH CAROLINA.	4,072,631	12,145,049	82,431,684	4,136,334	87,171	37,483	193,244	20,207	533,935	285,551	1,085,503	15,060,015	1,066,277	43,700	16,271,434
GEORGIA.	6,378,479	16,442,900	93,753,445	3,894,130	131,331	57,379	324,223	79,286	630,019	560,433	2,168,617	25,728,416	1,027	1,085,634	30,080,099
FLORIDA.	349,049	1,236,240	61,323,224	688,765	10,848	5,002	72,876	6,794	182,413	23,311	209,433	2,880,058	1,027	1,152	28,734,048
ALABAMA.	4,433,614	7,702,067	34,735,634	3,702,927	73,119	44,849	105,576	54,968	438,254	371,880	1,904,340	21,630,112	294,044	17,261	28,734,048
MISSISSIPPI.	3,444,335	7,046,061	18,398,768	2,133,731	115,469	12,364	227,791	66,961	433,263	210,333	1,582,734	19,403,662	137,990	9,606	22,446,552
LOUISIANA.	1,590,953	14,454,669	73,814,398	1,576,958	89,514	12,364	227,791	66,961	433,263	210,333	1,582,734	19,403,662	137,990	9,606	22,446,552
ARKANSAS.	781,521	1,816,684	13,265,245	1,601,290	60,197	11,559	250,439	86,255	163,320	91,256	3,114,111	29,978,016	1,619,386	41,689	3,104
TENNESSEE.	5,173,173	13,808,849	13,808,849	3,360,220	270,636	75,303	247,475	62,074	443,763	1,102,121	2,801,163	29,931,387	2,140,822	89,163	52,276,223
KENTUCKY.	11,368,270	10,972,478	13,808,849	6,109,037	313,682	63,609	644,499	63,609	749,067	3,942,929	1,904,770	44,121,741	4,925,889	415,073	52,276,223
OHIO.	9,891,493	2,441,780	335,758,603	12,730,385	463,397	3,423	93,676	53,330	389,891	1,122,493	2,263,776	22,478,555	6,214,458	103,871	52,276,223
MICHIGAN.	1,929,110	7,746,879	96,133,290	6,705,441	314,299	6,599	284,534	40,221	511,209	894,043	1,916,310	24,200,238	9,414,575	44,119	36,099,543
INDIANA.	3,046,543	6,997,937	63,097,482	3,903,943	267,633	10,572	228,533	76,136	443,615	1,196,309	1,692,043	19,766,831	2,966,928	19,916	8,656,799
ILLINOIS.	2,059,343	6,767,937	16,697,597	1,172,869	38,336	754	64,339	42,801	76,292	124,892	159,276	4,879,385	4,282,131	81,253	1,985,979
MISSOURI.	2,924,991	1,911,382	28,628,563	1,641,568	30,179	136	64,339	42,801	76,292	124,892	159,276	4,879,385	4,282,131	81,253	1,985,979
IOWA.	824,682	1,931,159	28,628,563	1,641,568	30,179	136	64,339	42,801	76,292	124,892	159,276	4,879,385	4,282,131	81,253	1,985,979
WISCONSIN.	1,045,499	3,831,571	13,808,849	1,641,568	30,179	136	64,339	42,801	76,292	124,892	159,276	4,879,385	4,282,131	81,253	1,985,979
CALIFORNIA.	62,324	23,346	2,849,170	133,423	8,423	420	9,437	8,114	24,188	13,362	30,325	1,876,189	211,942	107,702	2,913
ARIZONA.	5,035	23,346	2,849,170	133,423	8,423	420	9,437	8,114	24,188	13,362	30,325	1,876,189	211,942	107,702	2,913
NEVADA.	132,857	30,516	311,799	77,960	5,079	8,654	10,635	12,257	10,085	377,271	7,314	1,494,629	196,516	210	365,411
UTAH.	16,333	124,370	1,653,952	151,605,147	4,323,632	559,070	6,391,946	1,698,261	10,265,180	21,620,482	30,315,719	543,822,711	100,479,150	14,188,457	392,141,230
NEW MEXICO.	118,433,178	181,590,025	3,266,925,537	151,605,147	4,323,632	559,070	6,391,946	1,698,261	10,265,180	21,620,482	30,315,719	543,822,711	100,479,150	14,188,457	392,141,230

PRODUCTIONS OF AGRICULTURE IN THE UNITED STATES.—SEVENTH CENSUS.—1850.

Guenon's Method of Choosing Milch Cows.

We somewhat wonder that this book is not more generally known among farmers. A system which approaches comparative exactness in enabling one to tell the milking qualities of a cow, the amount of her milk, its quality, the time she will be dry—a system which is applicable, also, to a calf, or a heifer, and enabling you to judge from certain external marks whether she is to be valuable or worthless for the dairy, is surely, if true, one of the most valuable discoveries of the day. *Is it true?* We answer without having much practical experience ourselves, that in this, probably the best dairy district in the Union, and which has contributed to make the excellence of Philadelphia butter proverbial, it is *believed* in fully and practised by some of our largest and best dairymen, in selecting their cows. That it should appear absurd, and be inexplicable as regards the connection between certain quirks of the hair and the capacity for deep milking, is no argument when arrayed against *facts*. Some of our friends have proved it fully. One in particular, has given it much attention, and made himself acquainted with the method, and although engaged in business in no ways connected with agriculture, is called upon by farmers from various quarters, to purchase their cows, and we have known of one case of his attending a vendue of cows, and refusing to bid because they had not the right marks, to have the effect of their going off at a very low figure, and making a difference to the owner of a very considerable sum. The annual value of butter and cheese, made in this State for 1850, was \$4,930,102, estimating the butter at 15 cents, and the cheese at 6 cents per pound. Dividing the number of pounds of butter by the number of cows, we find an average yield for each cow of only about 75 pounds of butter per annum. This small amount may be *partly* owing to their not being in all cases so kept and treated as to yield their full capacity, but no doubt chiefly arises from their not possessing the *property* of deep milking. Admitting the system of Guenon to be correct, what may we not estimate the *increase* of dairy products in our own State, if it were generally known. Many a calf goes to the butcher that would make a valuable milker. Many a calf is raised to make almost a worthless cow. This new method guides the farmer in each case. The book is in pamphlet form, and can be forwarded by mail, and may be obtained at the agricultural warehouse, in this borough. It was critically examined and reported on by several scientific and agricultural societies in France, who subjected the author to the most rigid tests, and their reports were uniformly favorable, and he was presented with medals of approbation. We hope our farmers will read, examine, and prove for themselves. We give below, a report of one of the local agricultural societies, which is but the counterpart of many others.

AGRICULTURAL SOCIETY OF AURILLAC.

At its general meeting of the 26th of May, the following Report was presented and read on the subject of the experiments which I had been called upon to make:

REPORT.—*Gentlemen*: M. Francis Guénon, a husbandman of Libourne, has established a method, deemed by him infallible, by means of which, upon a mere inspection of any Milch Cow, she may be judged of, and we may know the quality of her milk, the quantity of it which she is capable of yielding, and also the time during which she can give milk.

A Committee appointed by the Agricultural Society of Bordeaux, and composed of several well informed agriculturists, and of a very distinguished Professor of the veterinary art of the Department of Gironde, had already borne testimony, after putting it to numerous tests, to the efficaciousness of the system of M. Guénon: and the result of its observations had been published in a very remarkable report, addressed to all the Agricultural Societies of France.

Your Society, considering that this discovery might be of high importance to our country, which derives its income chiefly from the product of Milch Cows, entered into correspondence with its author, and gladly accepted his obliging offer to come to Auvergne and subject his method to the test of experiment.

Yesterday, the 24th of May, M. Guénon arrived at Aurillac, and immediately proceeded with the members of your Committee to the *Veyrac* farm, belonging to the President of the Society. He examined with the utmost care the fine cow stable of that domain, which embraces one hundred cows of the best varieties that we possess. He then began his experiments upon a number of cows which were presented to him, and which had designedly been selected from among the best, the moderately good, and the most indifferent of the establishment. Upon each of these separately, M. Guénon pronounced with precision, both in regard to her daily yield of milk, and to the time during which she continued to give milk after being got with calf. We must acknowledge, gentlemen, that his decisions corresponded almost invariably with the statements obtained from the person in whose charge the cows are. The only variances we had to notice were some very slight ones in regard to the quantity of milk. On this point we must call your attention to the fact that the cows of that establishment are always fed high, upon clover or other artificial grasses, which considerably augment the quantity of milk; and that this may have caused the mistake of M. Guénon, which consisted in his pronouncing the yield to be a little less than it really is. It is to be remarked that he was totally unacquainted with the usages of the country in regard to the feeding of cattle.

In order thoroughly to convince your Committee of the reality of the discovery, M. Guénon made us acquainted with the different signs upon which his method rests. With reference to these signs, which are external and apparent, and stamped by the hand of Nature upon each animal, he has established eight classes or families, that comprehend all the varieties of the cow found in the various Provinces of France. Each class is divided into eight orders; and each of these orders into three sections, according to size, as being high, of medium height and low.

According to the numerous observations of the author, all cows belong to some one of these classes or families, and take their place under some one of the

eight orders of the class. Each class possesses marks differing in shape and size from those of the other classes; and these marks are easy to distinguish, on merely looking at them. In each class, the cows of the first orders are the best of the class, and the yield of milk is in proportion to the order; so that the two higher orders are the most productive, the third and fourth orders tolerably good, and the others falling off more and more, according to their grade.

M. Guénou applied his system, in our presence, to a number of cows which were presented to him a second time: he made us remark their various signs, which differed in size and shape, and were larger or smaller, according as the cow was a good or bad milker. He informed us that his system is equally applicable to young animals, and that their future qualities in regard to the production of milk can be judged of with equal certainty. In corroboration of this, he caused us to notice the same signs upon calves three or four months old, and also upon bulls destined for the next covering season. The cowherds stated that the calves which had been assigned by him to the first orders were from cows that gave a great deal of milk. Upon two splendid bulls, of the fine breed of SALERS, which were of the same age, and exactly alike in hair and size, M. Guénou passed very different judgments: the one he pronounced good, and assigned to the first order of his *Flanders* class; the other he pronounced bad, and assigned to the fifth order of the *Horizontal* class.* He justified these judgments by very precise comparisons, and made us remark the difference that existed in the signs of the two animals.

This day, the 26th of May, M. Guénou has made new experiments at the Cattle Fair of the town of Aurillac, in presence of several members of the Central Agricultural Society, and of the Sub-Societies, and of a great number of land-owners and agriculturists of Cantal and the neighboring Departments.

The following is the manner in which your Committee have thought proper to proceed. Each cow was examined separately by M. Guénou, who wrote his notes upon her, and delivered the paper closed, to one of us. Immediately after, another member of the Committee questioned the owner of the cow, or the person in charge of her, in regard to her daily yield of milk, its quality, and the time during which she continued to give milk after being got with calf. The answers were taken down in writing, and then compared with the notes written by M. Guénou. They were generally found to accord, and proved, to the satisfaction of your Committee and of every one present—all of whom attended with lively interest to these proceedings—that M. Guénou possesses great sagacity in judging of cattle, and that his method rests upon a sure foundation.

An incident occurred to confirm us in this opinion. A farmer played the trick of bringing up for examination a cow that had already been examined and pronounced upon. The notes written by M. Guénou on this occasion, accorded exactly, in every respect, with those he had written on the former.

The method of M. Guénou has not the merit of being a brilliant theory. It rests upon facts and long experience. It is only after repeated trials, and twenty-five years of toilsome researches, that its author has accomplished the task of establishing it.

We are of opinion, gentlemen, that M. Guénou ought to be encouraged by you in the publication of a system which appears to us destined to exercise a happy influence on the advancement of one of the most important branches of rural economy. What

immense advantages may there not result, particularly in Auvergne, where the raising of cattle and the manufacture of cheese constitute the chief branch of industry, from a method which should enable us to distinguish, in a sure way, between good and bad cows? By applying this system to calves and to bulls, our stock would rapidly be raised to a high point of excellence, and we should soon have in our mountains none but cows of the best kind.

In view of all these considerations, your Committee have the honor to propose—

1st. That there be awarded to M. Guénou, a gold medal, with the effigy of OLIVIER DE SERRES.

2nd. That he be proclaimed a corresponding member of the Society.

3rd. To subscribe for twenty free copies of his work, for distribution among the Sub-Societies of the department.

4th. To cause this Report to be inserted in the AGRICULTURAL PROPAGATOR, and to transmit a copy to all the Prefects and Agricultural Societies of France.

[Signed] COUNT SAIGNES,
G. DE LALAUEIE,
GENERAL BARON HUGONET,
V. DE PRUINES, Reporter of the

Committee.

NOTE.—At the same sitting, the recommendations of the Committee were adopted by the Central Society of Agriculture of Cantal.

*See the names of the several classes, in the chapter *On the different kinds of Cows*.

The Fowl Fever.

It would seem by the following paragraphs, which we extract from the New England Cultivator, that the fowl fever has by no means abated:—

At the late Boston fowl exhibition, in September, three "Cochin Chinas" were sold at \$100! A pair of grey Chittagongs at \$50! Two Canton Chinese fowls at \$80! The grey Shanghai chicks at \$75! Three white Shanghaes at \$64! Six white Shanghai chickens \$40 to \$45; and these prices, for similar samples, could now be obtained, again and again.

Within three months extra samples of two years old fowls, of the large Chinese varieties, have been sold for \$100 the pair!! Several pairs, within our own knowledge, have commanded \$50 a pair within the past six months. Last week, we saw a trio of white Shanghaes sold in Boston for \$44. And the best specimens of Shanghaes and Cochin China fowls now being \$20 to \$25 a pair, readily, to purchasers at the South and West.

These prices do not equal, however, the sums which have been recently obtained in England for fancy fowls. The Cottage Gardner says:

Within the last few weeks, a gentleman near London has sold a pair of Cochin China fowls for 30 guineas, (\$150) and another pair for 38 guineas, \$190. He has been offered £20 for a single hen; has sold numerous eggs for one guinea, (\$5) each, and has been paid down for chickens just hatched, 12 guineas, (\$60) the half dozen, to be delivered a month old. One amateur alone has paid upwards of £100 for stock birds.

Over thirty tons of Eggs were brought into Sandusky, Ohio, on Thursday last, on the Sandusky, Mansfield and Newark railroad. The Register learns that they were all from one point, viz: Mansfield.

Taste of Turnips in Butter.

About six or seven years ago, I saw it stated in a provincial newspaper, to feed cows with turnips immediately after being milked, and on no account to give them any a short time before milking, prevented the milk or butter from tasting of turnips. The method I pursue is this: Immediately after being milked in the morning, they get as many turnips as they can eat. During the day they are fed on hay, and immediately after milking at night they get the same quantity of turnips. The milk and butter are very much admired by all who take them, both for color and flavor, and I have often been called upon to give a statement of our feeding by visitors. I have several times given the cows turnips a short time before being milked, just to prove the thing. On such occasions the milk and butter tasted strongly of turnips.—[Gard. Chron.

Pears on Quince.

At a Pomological meeting during the late State Fair at Utica, and attended by Barry, Thomas, Hovey, Elliott, Warder, and other experienced Fruit Growers, the following list was voted, as having proved after several years trial, to be the most desirable for Quince Culture, the varieties named, being both vigorous and productive on that stock.

Louise Bonne of Jersey,	Capiaumont,
Dutchess Angouleme,	Napoleon.
Beurre Diel,	Beurre d'Amalis,
White and Gray Doyenne,	Easter Beurre,
Long Green of Autumn,	Soldat Laboreur,
Doyenne Boussock,	Ux-dale's St. Germain,
Henry IV,	Bergamotte Cadette,
Summer Fränkreal,	Beurre d'Anjou,
Madeleine,	Doyenné d'Hiver Nouveau,
Stevens' Genesee,	Urbaniste,
Vicar of Winkfield,	Beurre Gris d'Hiver No'vu,
Glout Moreau,	Catillac.

Cut Hay for Milch Cows.

We copy from the New England Farmer, an experiment by William S. Lincoln, on feeding the above:

"My milking stock consisted of one cow, which came in the 29th of last October, the two trial cows, and one other which calved last April, and which is expected to calve again the first of next April. Some time before commencing this experiment, I was feeding my stock—what would be called poor stock—with hay, with an allowance of roots. I commenced cutting this hay for all my stock, young and old, (sixteen head,) occupying me one hour and-a-half daily. Almost simultaneously with feeding the cut hay was an increase of milk very perceptible as it was milked in the pail. An inquiry was made by my wife, who in person takes sole charge of the dairy, as to the cause of this increase. An evasive reply was made. From day to day, the milk increased enough from the stock I have described, to require the substitution of 6 qt. for 4 qt. pans, which had been previously used. I think I am within bounds in saying the increase was over a pint daily, per cow, occasioned, to the best of my knowledge, solely by the use of cut hay."

GREAT POULTRY BREEDING ESTABLISHMENT.—Orville Hungerford, Watertown, N. Y., keeps five thousand hens in a ten acre lot, with large, suitable buildings for roosting, laying, setting, and rearing chickens.

Original Communications.

For the Farm Journal.

PHILADELPHIA SURROUNDINGS.

As long ago as one can remember, when a stranger visited our city, his friends made it a point to drive with him to the *Woodlands*, as one of the most attractive spots in our vicinity. Fair-Mount and Laurel-Hill did not then possess their present attractions. Girard College had not been dream'd of, and *Bartram's Garden* had fallen out of mind, except with the scientific few.

Recently Dr. Darlington's book has awakened public attention to the spot which Bartram's name and the visit of St. John De Cravecoeur make classical; and the estate of the Hamilton's after being long neglected, has, under the good-taste and good auspices of the Cemetery Company, had its beauties developed, cultivated and improved, until it promises to become one of our finest specimens of Landscape Gardening.

As the season of the year is with us, when such places appear most interesting to all whose evening sun verges to its occident, let us take a glance at them.

After crossing the Permanent Bridge, turning south from West Philadelphia, you find yourself on the Plank road leading to Darby, and if it be in the even tide of the year, soon come to where the falling leaves say to you—*memento mori*—It is "the Woodlands," and as you drive through those pleasant grounds the instincts of your nature re-echo the ever recurring—*sisto viator*. You have again and again to improve these solemn injunctions—and admire the beauties around you. Your thoughts, if rightly trained, after looking down, looking around and looking within, are led to look up. Perhaps you may say to yourself, well, after all these tasteful and beautiful memorials of the dead, a simple green turf is the covering which our mouldering clay should most covet for its narrow house surrounded by all that is alive and beautiful; there is then no sculptured marble to awaken envy, or eulogistic epitaphs to provoke inquisition, when "corruption says to the worm thou art my mother." Should surviving friends wish a more certain index to the spot where your bones repose, let it be in the simplest form possible, of some enduring material, with an equally simple *Hic Jacet*.

Requiescat in Pace.

What with the "eventide of the year," the woodlands is now peculiarly attractive as a last resting place for the poor body when done with life.

Leaving the woodlands, to find the old Bartram Place, turn to the left a little below the "Sorrel Horse"—crossing the railroad on a bridge where the cutting must be at least thirty feet deep, and you find yourself on the spot. Much of the original Bartram

Garden is on the west of the railroad, which, in fact, passes through near the middle of it. The original dwelling-house is quite elevated. The moment you enter the premises, through a gate, about one eighth of a mile from the great southern road, the trees, shrubs and plants all indicate that you are approaching classic ground; indeed, the double row of ancient catalpas, one on either side of you, on leaving the main highway, tells you the same thing, before reaching the gate. Walking over the grounds, the first thing which surprises you is their *extent*. Your next surprise will be at the vast number of interesting trees, of an age and character indicating that Bartram himself had planted and trained them—some of prodigious size, some very rare, and many of extraordinary beauty—the evergreens, particularly, loom up and attract you. There, too, close by the south east corner of the old mansion, stands the Lady Petre Pear tree, with its thousand interesting associations. The present proprietor is entitled to the public thanks for the genteel courtesy with which he so cheerfully accords to strangers permission to range over these interesting grounds, and for the facilities which he has provided. All the most interesting trees and plants are labelled in a fair hand, conspicuously, in a way to indicate both their botanical character, and the name by which they are generally known; His arrangements and improvements are all in excellent good taste, presenting these interesting memories of John Bartram to the best advantage—bringing them out and not hiding them. The walks, and seats and arbors, which every where abound, combine true luxury, with a neatness and simplicity which can hardly be surpassed. Every where, you see evidence of the best care-taking, and of an occupant who understands and appreciates the unrivalled precious things in the productions of mother earth, of which he has become the proprietor; and the interesting associations connected with them, the world over. There presents itself to you the veritable mansion built by John Bartram's own hands, (where Jowan Alexidontz dined with him,) venerable for its age, but still solid, with scarce an indication of decay. Its window-frames carved out of solid stone, while the pillars, and wide steps, and pavement of the portico, are of the same enduring material. The magnificent vines which cover its entire front, add the *picturesque* to the double reality of its green old age. Long may Mr. Eastwick's life be spared, to keep alive as he does, every thing connected with the name of John Bartram, in the same tasteful, judicious and magnificent way with which he has commenced.

He is building for himself a residence upon elevated ground, entirely without the original premises cultivated by Bartram as his *garden*. The traveller has a glimpse of it in passing, by railroad. This building is of an extent and style of finish, novel, cu-

rious, and highly ornamental in its architecture, in its tower and cupola, and in the character of the preparations making for what are to be its surroundings, which might, possibly, excite the envy of our *millionaires* towards any other than a Philadelphia handicraftsman, whose industry, energy, enterprise and ingenuity have won from the Emperor of all the Russias, the ample means which enable him to do so much for the adornment of our own winding river, and add new attractions to the many already existing in that interesting locality.

Should these jottings down of a correspondent not prove too deeply tinged by the influences of the "sere and yellow leaf," nor yet again by devoted attachment to the name of Bartram and the Horticulture he left behind him, they are at your service.

VIATOR.

October 29th, 1852.

For the Farm Journal.

Additional Remarks on the use of Lime.

Every reader of your valuable Journal must have been pleased with the article in the November number, by Mr. G. Blight Browne: "on the theory of the action of lime in agriculture."

The views which he there gives are unexceptionably correct; and given in so short and clear a manner that its perusal cannot be sufficiently recommended to all those who desire to have their ideas settled on this subject.

Most of the injurious effects experienced from overdoses of lime, must undoubtedly be ascribed to its being used in the caustic state, or in that state in which it exists immediately after being slacked; instead of being first allowed to become perfectly carbonated by sufficient exposure to the air. In the former case, if slacked by water, it consists entirely of a combination of lime and water, called the hydrate of lime, and if air-slacked, of the same compound, with more or less carbonate of lime. The hydrate of lime, in either case, possesses strong basic or alkaline properties, by which, as Mr. Browne says, "if applied in doses above the amount necessary to saturate the acids in the soil, it will prey upon the humus, to the damage of the growing crop," and even with Mr. Gowen's words, "when his allotted means fail to appease his growing appetite he will feed on the plants themselves." In the latter case, after sufficiently long exposure to the air, it is converted entirely into carbonate of lime, that is, a combination of lime and carbonic acid, which has none of the alkaline properties of the hydrate of lime, but is earthy and neutral both in taste and other properties, and may therefore be applied in almost any quantity with impunity.

What I would particularly point out in connection with this matter, as it probably is the true cause of the different results obtained by different experiments, is the different facility with which different varieties of lime absorb carbonic acid from the air, and

the different lengths of time, which even the same kind of lime may require for its saturation, if placed under different circumstances. This is particularly the case, when the lime contains large quantities of magnesia, when it is exceedingly slow in absorbing the carbonic acid even when spread on the soil, and this is probably the cause why magnesia in lime was for some time considered injurious, altogether, for agricultural purposes. Some fourteen years ago, when this notion was quite prevalent—the writer of this article being desirous of settling this question concerning the injurious effects of magnesia in lime used for agricultural purposes—happened to visit a quarry in Berks county, the lime from which was used largely, (say from 30 to 40 bushels to the acre) without the least injurious effect. On inquiry about the lime from an adjacent quarry only a few rods distant, it was stated that it was not used for the same purposes on account of its containing magnesia. Specimens of the limestone were procured from both quarries. They differed in appearance by their color, the reputed magnesian being of a light grey color, while the other was of a dark blue. By analysis they both were found to contain the same, and a very large proportion of carbonate of magnesia, (44 per cent.) It was thus evident that the preference of the one over the other could only be due to its blue color, caused in this, as in similar cases, by the presence of a very small portion of carbonaceous matter (less than one-half of one per cent.) It proved, however, conclusively, that with proper precautions, even such highly magnesian lime is applicable to the soil with equal benefit.

Before leaving this subject it may, however, not be without interest to state, that another and entirely different use has by some been assigned to lime in a caustic state. This use depends on the property of caustic lime to decompose clay and similar minerals associated with it in the soil, when mixed with them in the moist state, by which the potassa, and perhaps also phosphoric acid, which they always contain, are liberated, or at least put in such a state of combination as to be taken up readily by the plants. If this view be correct, so that it should be possible to apply it for this purpose with advantage, as this effect could not be produced by it as carbonate, it is evident that it would be necessary to apply it in as caustic a state as possible, and abundantly. It must, however, be admitted, that on account of the injurious effects which Mr. Gowen has so ably contended against, it should be used for this purpose with hesitation, for instance, only on entirely worn out soils, for which the best time would be in the fall, owing to the constant state of moisture during the winter. This same property of lime might also suggest the experiment of slacking the lime with water to a thin paste, and then mixing it with a proper proportion of clay, so as not to render the mass too hard for break-

ing, when dry, as the same effect would be still more enhanced by a moderate burning of the materials, it is not improbable that certain clayey limestones, such as are frequently found in the coal-measures, might be preferable for agricultural purposes; but they would require particular care in burning, as too high a heat would probably impair their slacking properties, as also diminish the desired effect.

M. H. B.

Philadelphia, Nov. 30th, 1852.

For the Farm Journal.

Blight in Pear Trees.

Some popular writers on the blight of pear trees, attribute as one cause, freezing of the sap, particularly where trees make a very vigorous growth late in the season, and do not mature the wood perfectly. If this reasoning be correct would it not be proper to remove, at this season, with the knife, all immature branches of late growth?

NOVICE.

Chester county, Nov. 27th, 1852.

[We have no doubt that the alternate freezing and thawing of our open winters is the frequent predisposing cause of pear blight, causing the sap vessels to distend and burst, and also that there is a greater liability in immature wood to be affected by these changes, and which may sometimes be prevented by the plan suggested above, but this will not afford perfect security, as blight occurs frequently where there is no late autumnal growth, and does not invariably occur where there is. Prevention is, however, easier than cure, as when it has once commenced, it progresses very rapidly, and nothing but the free use of the pruning knife, below the parts affected, can save the tree. The presence of the disease is often indicated the latter part of winter by discoloration and shrivelled appearance of the bark, which may be stopped from going further, by the use of the knife before the ascending sap in the spring has become mingled with that of the diseased parts, and extended into the general circulation.]

Any cause which suddenly checks or interferes with the *continuous* growth and vigor of the pear tree, tends to produce blight, and which, in other trees might merely stunt the growth or produce some transient injury. We have known a fine lot of seedlings, in the seed bed, to turn black, and die off in a few days from a sudden change of weather, and we have had blight to occur, owing, as we thought, to being transplanted from a very rich soil to a poor one, and vice versa. We have heard of its also occurring from excessive and injudicious pruning, and from the premature dropping of the leaves in midsummer, owing to a long continued drought. Any thing, as before observed, which affects the health and vigor of the tree, is apt to manifest itself in the form of what is called blight. The leaves turning

Pennsylvania Pomological Convention.

black and the presence of fungi, which have been observed, we always considered to be merely the effect of a previously diseased condition, and not the cause of it. The instinct of insects, by a law of nature, always are led to prey upon every kind of diseased or decaying animal and vegetable life. The remedy we have to offer is chiefly by way of preventive. Let the ground be well subsoiled before planting, which will enable the roots to push down, and render the tree less liable to be affected by changes of temperature. Plant on high ground, with northern exposures, which will retard the circulation induced by a premature spell of mild weather, in mid-winter or early spring. Adopt the plan of low heads, so as to shade the trunk or shield it from the injurious action of the sun's rays, by straw tied around, and above all, keep the ground constantly mulched.

The pear tree seems, constitutionally, more tender than other fruit trees, and any thing to promote its health and vigorous growth, (we do not mean forced and over luxuriant) will enable it to repel the causes usually producing blight. We believe our native seedlings are less liable to it than foreign varieties, as is also the pear on quince, which is one cause of this mode of growing it increasing so rapidly in public favor. We shall be obliged by any facts or experiments on the subject of pear blight from our correspondents, throwing any light on the cause or remedy for this great drawback to pear culture.]

For the Farm Journal.

MR. EDITOR:—

The sale of the imported cattle, by the Scioto Company, comes up to the Holland tulip mania, when 4000 gilders was paid for one bull. It appears, a Mr. Reneck spent \$4,335 to improve his stock of cattle—a snug little sum to buy a good farm with, that will maintain a whole family. The importation of foreign cattle has become, of late, a source of an unfair speculation. It has taken considerable money from farmer's pockets, without any substantial benefit for it. My opinion is, that the late imported cattle have very little, if any, improved or increased our stock of milk and butter, or improved the quality of meat. Of this latter quality the Durham breed is very inferior to our own domestic breed, which is a succulent, interlarded meat, while that of the Durham is dry and coarse. I hope the columns of your journal are open to a free discussion that the pro and contra may sift out the merit of my assertion, or bring out such positive facts as will disprove it.

H. SHUBERT.

Bethel, Berks co., November, 1852.

Elephants live for two hundred, three hundred, and even four hundred years. A healthy full-grown Elephant consumes 30 pounds of grain per day.

At an informal meeting of Pomologists at Lancaster, during the late Fair of the Pennsylvania State Agricultural Society, the undersigned were authorized to invite the Pomologists of Pennsylvania to attend a Convention to be held at Harrisburg, at the time of the annual meeting of the Pennsylvania State Agricultural Society, (January 18, 1853) to take into consideration the expediency of organizing a Pennsylvania State Pomological Society.

Gentlemen attending, are requested to bring with them specimens of the fruits of their section of the country, especially those of native origin.

Robert Patterson,	Philadelphia.
J. K. Eshleman, M. D.,	Chester county,
Daniel Miller, Jr.,	Cumberland co.
Casper Hiller,	Lancaster county.
Jacob B. Garber,	Lancaster county.
A. Marshall,	Chester county.
Thomas P. James,	Philadelphia.
Jacob Cocklin,	York county,
Samuel Miller,	Lebanon county,
D. Landreth,	Philadelphia.
Paschall Morris,	Chester county.
Jonathan McWilliams,	Huntingdon co.
Wm. G. Waring,	Centre county.
W. D. Frinckle, M. D.,	Philadelphia.

Agricultural, Horticultural and other papers interested in the promotion of Pomology, are respectfully requested to notice this call.

Dec. 1, 1852.

COLUMBIA, Oct. 4, 1852.

EDITOR OF THE FARM JOURNAL:—

I think there can be little doubt that the new Evergreen of your Harts-town correspondent is the *Taxus Canadensis*, or dwarf American Yew.

His description tallies exactly with the appearance of that plant as I have seen it growing in abundance on the Conewago, the Codorus, and the Juniata.

If I am correct he will find it covered, in the fall of the year, with waxy, red berries, about the size of a large currant, of an oval shape, having a sweetish taste, and a slight flavor of turpentine.

Truly Yours,

S. W. MIFFLIN.

The amount of sales of poultry at the Quincy Hall Market, Boston, in the year 1848, was \$674,423. The amount of sales for the whole city of Boston, the same year, was not less than one million dollars. The amount of eggs sold during the same year at Quincy Hall Market, was 1,129,735 dozen. During the same year, the whole value of eggs, consumed and exported in France, is estimated at 57 million dollars; the amount invested in poultry in the United States, \$12,176,170; in Great Britain, \$50,000,000.

From Journal of Royal Agricultural Society, by J. Barlow, V. S., Edinburgh Veterinary College.

PRIZE ESSAY—ON ABORTION IN COWS.

ABORTION (from Aborior, to be barren) is the term used to imply expulsion of the contents of the gravid uterus of any animal before the usual period of gestation is completed. This period, or time included between the process of fruitful connection of the female with the male, and the act of natural parturition or birth of the young, differs in duration in various animals. In the cow the time of gestation is commonly considered to be forty weeks. Much difference, however, is seen to exist in various cows; it is no unusual circumstance for some to exceed this period by one, two, or even three weeks, and for others to calve ten days or a fortnight before its expiration; all these variations being perfectly consistent with health both of mother and young.

M. Tessier, in a report founded on forty years' observation, and presented to the Royal Academy of Paris, says, that in 1131, cows which he observed, the longest period of gestation was 321 days, or forty-six weeks within one day; that out of 577 individuals no fewer than 20 calved beyond the 298th day, and that the shortest period was 240 days. Earl Spencer, in the "Journal of the Royal Agricultural Society of England" for 1839, considers the average period of gestation, as noticed in 764 individual cows, to be 284 or 285 days; but 210 calved after the 285th day, three went to the 306th day, and one to the 313th. A cow pregnant with a male calf is more likely to exceed the 40 weeks than she is with a female. This is shown in Earl Spencer's observations; he found that among calves born between the 290th and 300th day, there was a preponderance of males in the proportion of 74 males to 32 females. It has been found in the human female, as well as in the cow, that the period of the first gestation is frequently shorter in duration than subsequent ones. This probably depends on the uterus of a young female not being adapted for that amount of expansion of which it is rendered capable by repeated pregnancy. Calves born before the end of the seventh month seldom survive, even if born alive, and it is rarely desirable that they should live if born before the end of the eighth month, as their weakness and diminutive size render them comparatively valueless.

Although abortion is the term which the professional man employs to signify a premature expulsion of the uterine contents, yet, as applying to the cow, numerous other names are in daily popular use to signify this condition. Some of the most common are these:—*Slipping calf, sinking calf, picking calf, casting calf, and rearing.*

Abortion in a cow may take place at any period of gestation, but is most common between the 9th and 15th week. It may occur before the germ or ovum, from which the future animal is formed, has assumed any of its permanent characters, and when it is so minute and cellular in structure as to be hardly observable to the naked eye. It may also take place when the embryo, or first rudimentary animal outline, is barely recognised among the contents of the uterus, and it may be deferred till the various members and organs of the foetal body have attained more perfect development. In the human female, if this expulsion take place during the first sixteen weeks of gestation, it is called *abortion*; if between the sixteenth and twenty-eighth, it is termed *miscarriage*; if between the twenty-eighth week and the full period, it is considered *premature labour*. This distinction in terms is not observed in reference to the lower animals.

Extent of the Prevalence of Abortion.—From various inquiries which have been made, and from the

statements of travellers and other persons competent to speak on the subject, it seems that among the vast herds of wild cattle inhabiting the large tracts of country on the continents of the old and new world, abortion is unknown. In those mountainous districts of our own country which we have visited, more especially in Wales and Scotland, where small black cattle (although domesticated) are less artificially treated than the cows of richer districts in other parts of the kingdom, abortion, except as an accidental circumstance, is almost unheard of. It is also interesting to notice, that the pregnant human female, although exposed to the apparent hardships and discomfort of a savage life, is very rarely subject to abortion. Women, too, in our own and other countries, in the lower ranks of civilized society, are, on the whole, infinitely less liable to abortion than those of their sex who participate fully in the luxuries and artificial refinements of life. These facts are of great interest, and, as we shall presently find, although they do not prove what the causes of abortion are, yet, on the other hand, they instructively show (what is of great value in medical evidence) that while one class of animals is exempt from the operation of the causes in question, we must expect to find that such causes act, and are to be found in special connection with some peculiar conditions under which the affected animals are placed.

In every season, and under every variety of circumstance, there are occasional cases of abortion met with in particular stocks of cows; but if there be a continued recurrence of this year after year in the same place, (as is, unhappily, often the case,) we may generally find it connected with some local cause. A cow which has cast her calf one season, is very likely to do the same in the pregnancy or year succeeding. If several cows among a stock have cast nearly at the same time, and if, on again becoming pregnant, they are allowed to remain together and in company with other pregnant cows, it very generally happens that for the most part they not only abort again, but more of their companions, advanced to about the same period of gestation, will slip calf likewise. Next year, if no precautions are taken, matters become worse; and in a few seasons more, abortion, to a destructive and uncontrollable extent, is the pest of the farm. Where this state of things has existed for years together, it is not an uncommon circumstance to find that the farmer will entertain the most absurd opinions regarding its causes and continuance. As a means of prevention, he will nail horse shoes over the doors of his cow houses; bury the aborted calves with great ceremony, and under the observance of mysterious incantations; keep goats among his stock, or not allow his cows to take bull unless under a favorable "sign of the moon." A man who has observed a disease making yearly a steady and destructive progress among his cattle, who never adopts a single effective precaution which science and right reason suggest to prevent its extension, is just the person to fall a victim to dangerous, and even superstitious ideas.

Abortion occurs among animals of all ages, and though sometimes most common in those pregnant the first time, it is on the whole, quite as frequent among cows which have had two or three calves. An animal which does not become in calf until she is four or five years of age, is more subject to abortion than if she took the bull earlier. Bakewell, the eminent breeder, was in the habit of delaying putting his cows to the bull until they were three years old, and many of them failed to carry their calves. (See "Farmer's Magazine," vol. iii. p. 156.) Cows, which

for months together have repeatedly failed to conceive, although they have been regularly in heat and have had connection with the male, are very liable to abortion on conception taking place.

When a cow has taken the bull, and conception follows, the œstrum, or heat, soon passes away, and she settles down, to manifest no return of sexual appetite during pregnancy. Some striking exceptions to this rule, are, however, found, for we have known cows, although in calf, display a desire for the male.

The calves of some of the more primitive breeds of cattle in this and other countries, are, at birth, small in size when compared with some of those borne by our "improved" animals. The milk yielded by the native breeds, such as those inhabiting high land districts in this kingdom, is comparatively small in quantity, but rich in quality. These cows generally pass through the periods of gestation and parturition with immunity from many diseases to which higher-bred animals are during such times especially liable, and for the most part bring forth their young without that mechanical assistance which we are in the habit of affording to the short-horned cattle. It has, however, been found that, in order to keep pace with the interests of the age, in a commercial, economical, and scientific point of view, the ingenuity of man might be profitably turned to what is called the improvement of breeds of cattle. The objects aimed at in effecting this end are, by judicious admixture of animals, to produce such stock as, combining excellence of external form with milking and feeding properties, shall be most valuable for the requirements of mankind. Any animal that is readily domesticated, and adapts itself to what may be called artificial modes of life, is, in the course of years, under the hands of man, made subject to important modifications of external form, accompanied by intrinsic constitutional changes. The cow affords an instructive illustration of this fact; and while we can but confess that some diseases effect our improved cattle, which seldom occur among indigenous breeds, yet we must also admit the great national advantage of that practical application of the science of breeding, which has produced our choice animals of the present day.

SYMPTOMS OF ABORTION.

If abortion take place in the early weeks of pregnancy, it is but rarely that any symptoms are observed which foretell its occurrence. The speedy return of œstrum, however, soon makes the farmer aware that the contents of the uterus have been expelled. It is an interesting fact, and one worthy of attention, that the sooner abortion occurs after conception, the sooner also does œstrum succeed the abortion. In some cases the two conditions appear to go together; and we shall often find, on observation, that the periods of abortion correspond pretty closely with what would be the periods of recurring heat if the animal were not pregnant. Thus a cow will often abort at the end of the third, sixth, ninth, twelfth week, and so on; but except from accidental causes, she does not so frequently abort in the intermediate periods.

If abortion take place within two or three months of the natural period of gestation, it is denoted by symptoms which, although modified, resemble those indicating ordinary parturition. If it occur before the expiration of the third month, the system of the cow will not suffer much derangement; but if it happen at such an advanced stage of gestation as the sixth or seventh month, it is productive of serious injury, and frequently of great danger to the constitution and even life of the parent.

Before every act of abortion, and at whatever period it occurs, except, perhaps, before the third or fourth week of gestation, there is a discharge of brown glairy fluid and mucus from the organs of generation. If the embryo about to be expelled be very small, this discharge may be so limited in quantity as entirely to escape ordinary notice, and on that account it is highly important to be acquainted with the appearances which it presents. At first it is brown in colour, and of sufficiently thick consistence to hang in slimy strings from the vulva. Afterwards in consequence of containing a quantity of blood, and possibly liquor amnii, it becomes thinner and redder in colour. The discharge is caused by a breach of the natural connections between the fetal membranes and uterus, in consequence of which the fluid contents of these organs, after escaping into the uterine cavity, are thence expelled. During pregnancy, almost all cows have other occasional discharges from the organs of generation, which must be distinguished from that just mentioned, inasmuch as their appearances are perfectly consistent with health. They consist of a thick, colourless, transparent, and almost inodorous secretion, sometimes very copiously supplied by certain parts of the vagina and uterus in the vicinity of the os uteri, and by their consistence and tenacity assist in retaining the organ in a closed condition.

If the cow about to cast calf be in pasture, she may seek to be alone, but on the whole she is not so secluded in her habits as when at the full time of gestation. Cows in the same stock will also smell at her, as though some peculiar odor attracted their notice. If advanced five or six months in gestation, there is a sudden and slight enlargement of the udder; and if she be yielding milk at the time, it will be yellower in colour and greater in quantity than before. The external organs of generation become enlarged and loose in appearance, the ligaments which connect the sacrum (rump bone) with the bones on each side (ischia) are relaxed, but not nearly to the same extent as before healthy parturition. In young animals pregnant for the first time, and about to abort, none of the foregoing symptoms (except the discharge) are so plainly seen; in fact they are seldom detected by those in ordinary attendance on cattle. Hemorrhage, (or copious flooding of blood,) although so frequent and dangerous a precursor of abortion in the human being, is not common in cattle.

The above symptoms may require a few days for their development, or they may be prolonged over a week or more; but if the peculiar discharge continues, and increases in quantity, we may be certain that abortion is at hand. The immediate approach of the event is shown by the animal becoming evidently, uneasy, by her shifting from place to place, resting alternately on one hind foot and then the other, twisting the tail, lying down and speedily rising, arching the back and straining, quickened breathing, and accelerated circulation. The symptoms and process of abortion generally occupy less time and attract less notice than those accompanying healthy parturition.

When abortion is caused by mechanical injuries, such as blows, strains in leaping, concussion in running, and so forth, the fetus is suddenly passed into the neck of the uterus and vagina, and retained there several days. During this period, especially the early part of it, the cow is continually straining and suffers a great amount of irritative fever. In some instances part of the fetus, as its head, neck, or legs, will protrude from the vulva throughout the

whole time, and become so firmly compacted in the outer passages as to withstand any reasonable amount of mere pulling force employed to extract it. In these cases the life of the fetus has in all probability been suddenly destroyed, and the uterus has contracted to expel what has become a comparatively foreign body, before the external passages have become sufficiently dilated to allow its free expulsion.

If abortion take place during the early weeks of gestation, the fetal membranes (commonly called cleavings,) not having formed a firm connection with the uterus, are usually expelled along with the fetus. In the majority of cases occurring at more advanced periods, the cleavings are not expelled; this is partly owing to its firm attachment to the uterus, and partly to its own want of development and deficiency of healthy tone in the uterus to effect its evacuation. This retention is often productive of much distress and injury to the cow, and as decomposition commences in the membranes on their separation from the fetus, they are the continued source of a most offensive odour and discharge.

There are cases in which all these premonitory symptoms are seen, but, instead of being followed by abortion, there is a gradual arrest of the discharge, the belly of the cow slowly and almost imperceptibly diminishes in size, the quantity of milk is not lessened, the general health of the animal continues good, and after a time even shows a disposition to fatten; it will also be observed that she is never in heat, and that the external organs of generation become small and firm. Here, death of the fetus has taken place, but its expulsion has been prevented, most likely by want of sufficient dilation of the uterine neck, or by a deficiency of tone in the uterus itself. We have known instances of this kind, in which the fetus has been retained from fifteen to eighteen months after the parent had connection with the male, and was only detected in the uterus when the cow was slaughtered, after being fattened. The fetus, under these circumstances, is so much altered in external appearance, as to present little resemblance to its natural form, and its internal structures become converted into a dry, brownish mass, commonly possessing but little smell. These changes appear to be natural provisions made to effect such an alteration in the dead fetus as will allow its retention in the uterus with the least inconvenience and injury to the constitution of the parent. In some other instances, when the premonitory symptoms of abortion are not followed by expulsion, there will be a recurrence of temporary fits of straining for weeks, and even months, accompanied by a continued discharge of varying color and consistence; this occasionally contains fetal bones, or portions of them; the larger and heavier bones are retained for a considerable period, being sometimes found in the uterus on slaughtering the cow after she has been fed.

CAUSES OF ABORTION.

The causes of abortion are various; but from extended observation and inquiry into their operation, and in order to generalize their consideration, we propose to consider them under three heads:—

- I. Causes which act directly upon the fetus, its membranes, or the uterus itself.
- II. Causes of a constitutional character.
- III. Causes which, influencing the system or a part of it, operate through it upon the uterus.

I. Causes which act directly upon the fetus, its membranes, or the uterus itself.—These may also for the most part be considered mechanical causes, consisting, as they chiefly do, in injuries inflicted on the

fetus or the organs containing it. A cow, for instance, which has been severely gored by another cow, or if she has been running or leaping violently, or subjected to any other severe exertion to which she is unaccustomed, is very liable to cast calf, and the more so if she be some months advanced in gestation. A cow which has had hoove, or distension of the paunch by gas, very frequently slips her calf. The effects of the injury in these cases consist in a forcible displacement of the uterine contents, possibly with separation of the fetal membranes from their connections, to such an extent as to derange the nutritive processes and cause the death of the fetus. In abortions consequent on blows, the injury is sometimes inflicted so directly upon the fetus as to cause its immediate death; in abortion consequent upon hoove, the distended stomach has so forcibly compressed the uterus and its contents by driving them into the pelvic cavity or other constrained position, as to bring about the same result. These mechanical causes are mostly accidental or the result of carelessness on the part of those having charge of cattle, and on the whole, the number of cows effected by them is comparatively small; hence there are some grounds for the prevalent opinion that, if merely one or two or a very few cows in a stock cast their calves, the cause is one of an accidental and mechanical character. In the human female ulceration of the os uteri is a frequent cause of abortion. So far as we know, however, regarding the cow, this has not, as yet, been satisfactorily shown to be a common cause, although it is quite possible that, from the difficulty attendant upon making an examination in the part affected, disease may exist here much more frequently than is supposed.

II. Causes of constitutional character.—In some years there is a singular inaptitude in cows to conceive, although they regularly take the bull at every recurring period of heat during the season. If these do not depend on sexual impotency of the bull, they must be considered as cases of abortion. In the event of their being dependant on sexual inefficiency in the male, it will be found that all, or nearly all the cows having connexion with him fail to conceive, and other cows in the same neighborhood, and probably in the same stock, who have taken another bull, are not effected in the same manner. If, from among a number of cows having access to the same bull, a fair amount of conception takes place, and abortion (or want of conception) is seen in others, as seen by œstrum returning at the expiration of the three weeks subsequent to connection, it is fair to infer that that the fault does not lie with the male. It is a singular fact that some few bulls, in cows which conceive by them, beget twins, and in other cows fail to produce any offspring. Some bulls will be very prolific one season, and seem almost destitute of procreating power the next, although, to all appearance, the sexual appetite is as energetic as formerly. Some males are not good stock-getters, in consequence of the too great number of cows they are required to serve. The above facts show that the male seed or semen varies in its conditions in the same animals, as well as it does in different animals, and that all cases of apparent early abortion do not depend on sexual deficiency in the female. In cases, however, where it is known that the males are in themselves prolific, the œstrum will still continue to recur in females having connection with them. This is frequently seen in hot and very dry summer weather, and appears in some way connected with it. It must be remembered that at the period of œstrum, there is an increased quantity of blood determined to the ova

ries, uterus, and, as is visibly seen, to the vagina, and by the animal in heat rambling about, or probably rearing on other cows, the excitability of these parts is so additionally increased as to exercise on the male seed an influence unfavorable to conception. The male, too, in many instances in very hot weather, for various reasons, is sexually less competent than at some other times. The female sexual appetite is most perfect and most regular in its periods of return during the months of spring and earlier part of summer; these seasons seem to favor its development, and it frequently happens that cows which calve in autumn or winter do not take bull until the following spring.

What is called "high breeding" also seems to induce such a state of constitution in animals, as in course of time to predispose them to abortion. One of the most eminent breeders of short-horns in Scotland informs Mr. Cuming, a veterinary surgeon residing in this vicinity, that when he has got a section of his stock brought to a high pitch of perfection as regards feeding or milking properties, the animals are almost sure to cease breeding, either by not taking the bull at all, or by aborting, most commonly by the two conditions combined. He adds, also, that the best preventative he has found, is to work the animals in plows or harrows like oxen. This is a very instructive fact, and seems, so far as it goes, to confirm the opinion that when the art of breeding has been pushed to such a successful extent as to produce animals of great perfection, nature seems to set limits to their further propagation. Subjecting animals to labor, as above stated, may act favorably on the procreative powers by operating as a kind of tax or counterforce on the extremely artificial state of constitution induced by high breeding. It is always easier to breed from inferior animals of all kinds, than from those of a superior class, and their periods of gestation, as well as of parturition, are passed through with less danger to mother and offspring than is the case in those more highly bred. Thus, we not unfrequently see a very perfect cow, or a number of cows, put to an equally perfect bull, and are disappointed to find that pregnancy does not follow. In such cases, as these certain "points" and "qualities," as they are termed, already exist in such a state of perfection in the male and female, that sexual connection fails to ensure any further advance; nature can do no more, and there must be limits somewhere. In relation with the system of high breeding we must remember that various collateral circumstances are to be considered, which materially influence the constitution of the male and pregnant female. These animals, for instance, are most highly fed from birth, are carefully and warmly housed, and have every attention bestowed which can favor their rapid and perfect maturity; they are descended from ancestry which for generations has been equally well attended to, and which was all excellent stock in its day; in fact, they have, as it were, been gradually approaching limits beyond which art cannot further command the resources of nature. If, however, cows such as just named are put to inferior or comparatively "ill-bred" bulls, they will for the most part conceive, and the perfect male animal will beget stock in cows much inferior in "blood." Wild animals very rarely abort or fail to conceive; not having been subjected to the same modifying influences which artificial interference entails, they maintain a uniform standard consistent with those capabilities of propagation which have never been forced beyond the natural or original conditions of their constitution.

A cow (and especially a young one) which has cast

her calf once, is very likely to do the same again, and usually at about the same period of gestation. To such an extent does this liability exist, that some animals abort for many times successively, and even without any apparent cause beyond that which, to a common observer, appears to depend on habit. In the human female this periodical or repeated abortion is also very usual, and most difficult to overcome. It seems owing to a peculiar disposition in the uterus to evacuate its contents, when, in consequence of their development, they have produced an amount of distension beyond which the organ containing them has been unaccustomed to extend. Thus it is that cows having carried several calves to the full period of gestation, although afterwards subjected to abortion, are less liable to become habituated thereto than are young animals which cast their first calves. In the latter case the uterus never has expanded to its full capability; and second, pregnancy is disposed to empty itself at about the same period, and under the same amount of stimulus as it did before.

[TO BE CONTINUED.]

Compost Heaps.

From *The Michigan Farmer* we collate: "The value of yard manure depends upon two conditions: 1st, the manner in which it is made and preserved, and 2d, the state in which it is applied to the soil."

It should be borne in mind that the most valuable proportions of the manure of barnyards consists of the gasses that are at all times liable to escape into the atmosphere, and of salts which are washed away with every rain. So that after it has laid exposed in the yard half a year, a large part of its enriching qualities are gone. In the best agricultural districts cellars are constructed under the stables with trap doors into which all the litter is thrown and all the liquid manure runs mixing with alternate layers of muck, or swamp earth.

"The following analysis shows the superior value of sheltered manure over that exposed in yards.

	Sheltered manure.	Yard manure.
Water,	71.05	71.00
Nitrogenized matter, yielding ammonia, 100 parts dried,	2.37	1.07
Salt soluble in water, containing organic and inorganic matter,	10.07	4.07
Organic matter,	5.42	1.82
Inorganic,	4.28	2.79
Phosphoric acid,	0.03	0.20
Alkalies, potash and soda,	2.00	0.08

and adds, here is the advantages of scientific agriculture it tells the whole story at a glance. He prefers shelters or sheds constructed in a cheap style and if even covered with straw and the sides boarded; manure may be preserved in them for years but advises in this as in all things what is worth doing at all is worth doing well, and is the cheapest in the end.

"They should adjoin the stables, that the manure might be easily wheeled into them with barrows; and a platform will need to be erected on each side, resting upon arms morticed into the posts, upon which to wheel the contents of the stables, and distribute from end to end of the building. No water should ever enter this building except in the form of urine, unless it should be found necessary sometimes to reduce the temperature of the manure by applying water. If the soil is dry within the shed, it should be shoveled up and mixed with the manure in the stables. With the addition of a little water, occasionally, this makes a powerful fertilizer. The shed is to be deposited all the rough

may be found about the farm, such as refuse straw and corn stalks not used for bending, weeds, potato tops, turf or sods, leaves whenever they can be converted into the foods of plants, should be carefully husbanded, to add to the produce of the farm. Proper attention to this is the very starting post in good farming, and will enable a farmer to nearly double the average quantity of his crops per acre, with the same amount of labor as before given.

Liquid Manures.—This part consisting mostly of the urine of cattle and horses, is, by farmers generally allowed to run to waste, being considered but of little account. In Flanders, where are found the best farmers in the world, the urine of a cow is considered worth \$10 a year, so highly is it esteemed. It is found that there is voided by a cow in a year 13,000 lbs. of urine, of which 900 lbs. is solid matter, 400 urea, a substance yielding a large quantity of ammonia, and 230 ammonia. (*Johnston.*) The urine of the cow has been analyzed in several States by Sprengel, with the following results in 1,000 parts:

Water,	926.2	Urea,	400.00
Hippuric & lactic acid;	6.1	Mucus,	2.00
Carbonic acid,	2.1	Ammonia,	2.1
Potash,	6.6	Soda,	5.5
Sulphuric acid,	4.0	Phosphoric acid,	0.7
Chlorine,	2.7	Lime,	0.6
Magnesia,	0.4	Silica,	0.4
Alumina, oxide of iron and oxide of manganese,	0.1		

Here then, every farmer who keeps a cow or an ox, can have a manure equal in value to the best of the much lauded guano, if he will only take the proper steps to preserve it from waste; and estimated at the value of guano, would be worth, if the whole could be saved, \$20 a year.

It being evident that the urine of animals is quite as valuable as the solid excrements, the next step is to preserve it from waste. Something must be used to take it up and hold it in suspension. For this purpose, black mould swamps and the muck from marshes must be our main dependence. In truth, we need desire nothing better. The former is fit for use as soon as obtained, but the latter needs to be dug and exposed a year, to the action of air and frost to fit it completely for use. Those muck beds which are formed by deposits from the annual overflow of rivers, are generally fit for use after an exposure of a month or two. But it would be better to use fresh muck even for the absorption of liquid manures, than to allow them to run off and waste. There is however, ordinarily no necessity for this. Muck may be decomposed in four to six weeks, by a very simple process. Take three bushels of quick lime, fresh from the kiln, and one bushel of salt, or in this proportion. Dissolve the salt in water and slack the lime with it. Mix thoroughly, turning in every other day for ten days. Then draw up your muck and deposit a layer upon the ground, and give a good sprinkling of the lime; then another layer of muck, and another sprinkling of lime and so on. A powerful decomposition will soon ensue. After three or four weeks it may need to be shoveled over, when you will have a fine, black pulverulent mass, which will not only absorb the liquid portions of the manure, but will, itself be the source of some of the most important food of plants. Care must be observed not to use more water than is necessary to dissolve the salt, as the lime will not take up a large quantity. In case too much water is applied,

more lime should be added until it is brought into a state fit for use. It should be turned over as before stated, every other day for ten days, and then mixed at the rate of four bushels to the cord. This plan is given by Prof. C. W. Johnson, and it is found to be the most economical and profitable mode of preparing cold, organic matters, for application to soils."—*Am. Artizan.*

PHILADELPHIA, Aug. 23d, 1852.

MR. EDITOR:—

I have found lime which is to be used for manure greatly benefitted by slacking it with salt water, and then spread upon the ground in the usual way. I have never seen an article written on this subject; but still it may not be a new idea with me. As you said you would like communications on any form, I therefore take the liberty of sending this, which, if you think worth a place in your Journal, you are welcome to it.

I remain in haste,

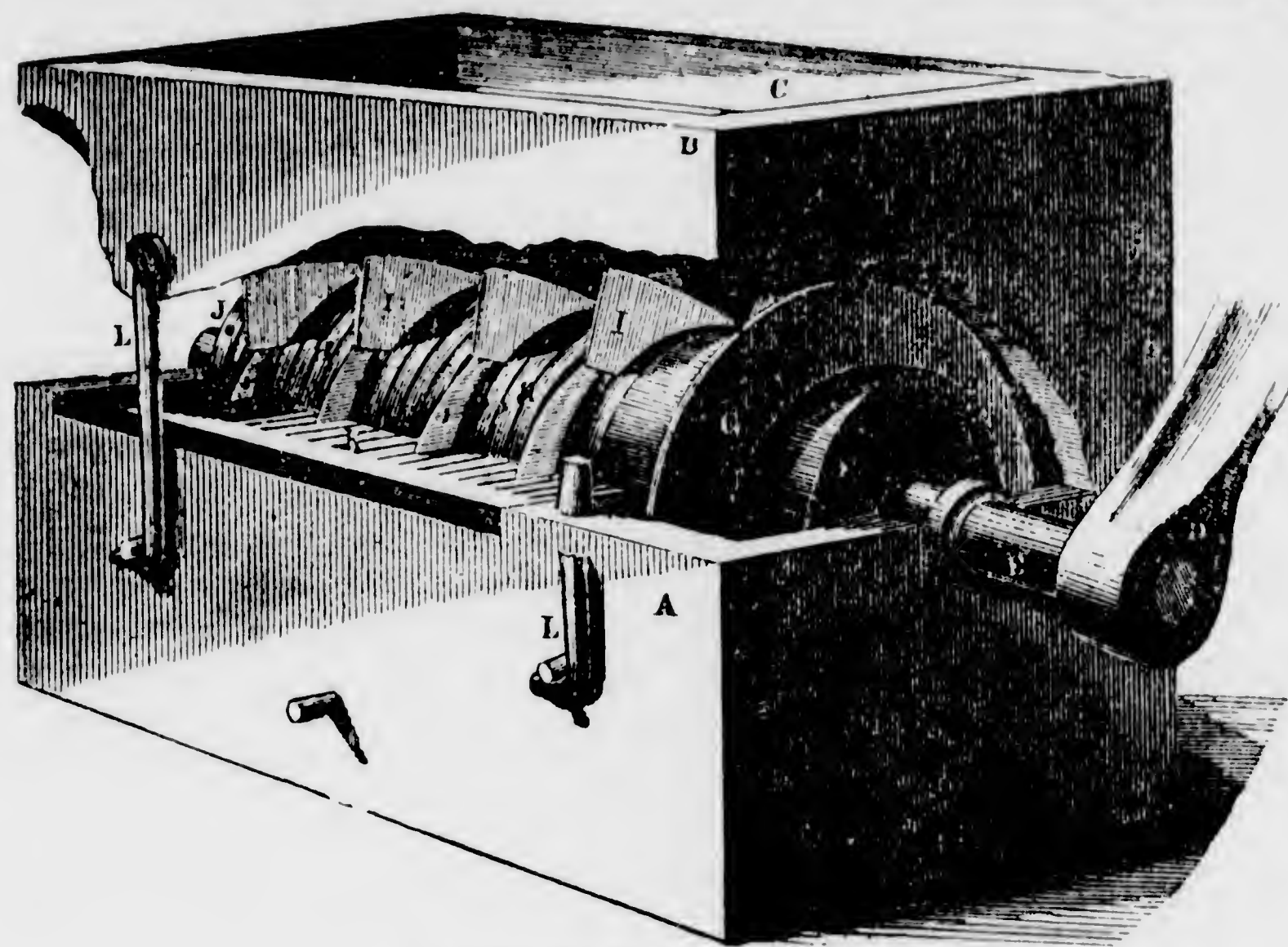
Your truly,

W. H.

The great advantage of slacking lime with salt water, spoken of above, is no new thing. Salt consists of chlorine and soda, and is decomposed by the lime, giving rise to the new compounds, carbonate of soda and chloride of lime. The carbonate of soda thus formed, has been found very efficacious in soils abounding much in vegetable matter, which it combines with and renders soluble for the use of plants, and also in the speedy decomposition of inert vegetable substances, such as leaves, corn-stalks, &c.

Don't Expose your Stock.

Liebig, the distinguished German Chemist asserts, that "Our clothing is to be considered nearly in the light of an equivalent for a certain amount of food." In all situations where the body is kept warm and comfortable by the protection of suitable garments, the demand for food, in order to sustain the natural functions of the system, will be less than where the protection is scanty, or but ill adapted to subserve the purpose for which it is designed. Now, this observation applies with no less force to the management of domestic animals, than to the management of ourselves and our children. A cow, forced to stand exposed to the weather in inclement seasons, to repose on the cold ground, or a barn or hovel where the piercing blasts have free access, necessarily requires a far larger amount of food than one carefully sheltered and provided with a comfortable stall and bed. The difference in the amount of food consumed by animals treated in the different styles above indicated, has been demonstrated by actual and repeated experiments, to be from twenty-nine to one hundred per cent, in favor of the latter! But this is not all. Exposure torpifies and emasculates the system, and opens the door for the introduction of many a fearful disease. An animal habitually exposed to cold, usually falls away. If a cow, "she shrinks her milk," if an ox, he will experience a loss of vivacity, and become stupid and inert, and but feebly prepared to answer too exorbitant drafts made upon his muscular powers under the yoke. "A merciful man is merciful to his beast,"—*Farmer & Artizan.*



PATENT MEAT CUTTER.

The above is a perspective view of a machine for cutting meat for sausages, invented by Thomas Vanderslice, of Valley Forge, Chester county, Pa., and for which a patent was granted on the 8th of May, 1851.

The claim is for the mode of adjusting the cutters by means of the adjusting plates. This meat cutter is a very simple one, and it is not liable to get out of order. All the parts can be made strong, so as to endure for a long time. It is worthy of the atten-

Turnips, Carrots, Etc. Their Inorganic Composition.

According to the analysis of Professor Way, a crop of 20 tons of bulbs or roots, and 4 tons of leaves of turnips, mangold wurtzel, and carrots, will respectively withdraw from the soil, or, in common parlance, to exhaust it, to the extent here set forth, viz:

	Turnips.	Mangold Wurtzel.	Carrots.
Phosphoric acid,	45	21	39
Sulphuric acid,	50	22	57
Lime,	90	21	197
Magnesia,	14	22	29
Potash,	140	133	134
Soda,	33	70	103
Chlor. of Sodium (salt)	57	160	85

From the above, it may be seen that turnips, mangold wurtzel and carrots, remove from the soil similar inorganic constituents, and in not dissimilar proportions to those required by the potato, as described in our present number. It may also be observed that potash, phosphoric acid and lime, in the proportions to form super-phosphate of lime, sulphuric acid, in about the proportion used in the Improved Super-phosphate of Lime, to fix the volatile alkali, and soda and chlorine, as they exist in common salt, are the great leading requirements; and for these crops, ammonia in the form of a sulphate, seems entirely sufficient in soils but moderately charged with organic matter, provided the inorganic constituents, named above, be present in the proper proportions and conditions. This will show the chemical agriculturist why a thousand bushels of Ruta Baga tur-

tion of those engaged in the business of mincing meats, vegetables, &c., and for private families it is also a commendable machine; it will save a great deal of long and arduous labor to those families who use no other machine than a common mincing knife.

More information about the sale of rights, &c., may be obtained by letter, addressed to Mr. Vanderslice, at his residence in Pennsylvania.

This Machine can also be obtained at the Agricultural Warehouse in this borough.

nips, or nearly an equal measure of carrots, may be raised from an acre supplied with Improved Super-phosphate of Lime, not exceeding in cost five dollars; while similar results would not be attainable from the use of six times that amount of barnyard manure alone, without increased quantities of phosphoric acid, sulphuric acid, and potash.—*Working Farmer.*

Artificial Stone Fronts on Houses.

A great number of houses are now built with coarse brick fronts, which afterwards receive two or three coats of boiled oil, and are then covered with a coat of peculiar mastic cement, which is composed, we are told, mostly of dried sand, some boiled oil, some red lead, and a little plaster of Paris. This cement resembles moist sand when put on, but it sticks well, and in a short time becomes as hard as freestone, which it greatly resembles. This plaster is streaked off in blocks, and a building so covered looks like one built of hard brown polished freestone. We have heard objections made to such buildings, but not one by a person who had taste and experience in architecture. This cement does not scale off; it endures and forms a thorough coating of artificial stone. The only objection worthy of note, urged against them, that we have heard, is this—"after all, they are not so good as brick buildings, which are no shams;" these words, we have remarked, for they appeared in print in a daily paper in our city, but the objection urged against the artificial stone fronts can be as strongly urged against the painting of any building. Paint is put on to preserve and beautify, and so is the artificial stone cement.—*Ledger.*

Mr. Vail's Cattle Sale.

The public sale of Mr. VAIL's fine herd of Durham cattle, took place at his farm near Troy, on the 13th of last month. Though the attendance was not large, the bidding was more spirited, and the prices averaged much higher than at any previous sale ever held in the State, as will be seen by the annexed list:

1. Yarm Lass, 3½ years, Messrs. Reber & Co., Ohio, \$670.
2. Yorkshire Countess, 2½ years, do. do., \$580.
3. Yorkshire Countess 2nd, calf, Capt. A. Root, Ohio, \$315.
4. Hilpa 1st, 12 years, Messrs. Reber & Co., Ohio, \$320.
5. Hilpa 2nd, 4 years, Gen. Geo. Cadwallader, Phil'a., \$260.
6. Hilpa 3rd, 2 years, do. do., \$360.
7. Hilpa 5th, calf, Capt. A. Root, Ohio, \$260.
8. Lady Barrington 5th, 4 years, Gen. Geo. Cadwallader, Phil'a., \$320.
9. Lady Barrington 7th, 1 year, H. & R. M. Watts, M. P., Canada, \$240.
10. Butter Cup 2nd, 5 years, Mr. O'Hara, Madison co., N. Y., \$200.
11. Betty, 7 years, Gen. Cadwallader, Phil., \$150.
12. Betty 2nd, 4 years, Mr. D. A. Baker, Ohio, \$110.
13. Betty 3rd, 3 years, calf, Gen. Geo. Cadwallader, Phil'a., \$75.
14. Bellflower, 13 years, T. S. Halton, Vt., \$75.
15. Laura 2nd, 3½ years, Mr. H. Parsons, Canada, \$125.
16. Laura 3rd, calf, Richard H. Dulany, Esq., (from the South,) \$100.
17. Cherry, 7 years, Wm. K. Gaston, Esq., New Jersey, \$100.
18. Estherville 3d, 6 years, L. Spencer, Esq., Westchester, N. Y., \$610.
19. Estherville 4th, 2 years, Messrs. Reber & Co., Ohio, \$405.
20. Willey 7th, 5 years, O. Slate, Jun. Esq., N. Y., \$260.
21. Willey 8th, 2 years, Gen. Geo. Cadwallader, Phil'a., \$160.
22. Lady Ann, 2 years, H. Parsons, Esq., Canada, \$130.
23. Weldham, 6th, 2 years, Hon. Adam Ferguson, Canada, \$275.
24. Eunice 4th, 4 years, Mr. D. A. Baker, Ohio, \$125.
25. Eunice 5th, ½ year, Harrey Ingersoll, Esq., Phil'a., \$120.
26. Aurora 2nd, 9 years, do. do., \$90.
27. Aurora 3rd, 4 years, Giles Boulton, \$65.
28. Aurora 5th, calf, Richard H. Dulany, Esq., (South,) \$80.
29. Cherry 3rd, 6 years, Giles Boulton, Ohio, \$75.
30. Cherry 4th, 1 year, Capt. A. Root, Ohio, \$75.
31. Cherry 5th, calf, I. Spencer, Westchester, N. Y., \$110.
32. Snowball, 3 years. Not sold.
33. Blossom, passed, not sold.
34. Blossom 2nd, calf, Gen. Geo. Cadwallader, Phil'a., \$65.
35. Lilack 3rd, 4 years, Or Slate, Jun., Esq., N York, \$80.
36. Ella, 4 years, Mr. Giles Boulton, Ohio, \$120.
37. Bellflower 3d, calf, Linus Birdseye, Conn., \$55.
38. Salley, not sold.
39. Earl Derby, 1 year, Messrs. Reber & Co., Ohio, \$570.

40. Kirkleavington 2nd, 1 year, O. Slate, Jun., Esq., N. Y., \$380.
 41. Kirkleavington 3rd, calf, Mr. Calkins, Madison co., N. Y., \$220.
 42. American Comet 2nd, 1 year, Capt. A. Root, Ohio, \$130.
 43. American Comet 3rd, calf, P. Lathrop, Esq., Mass., \$125.
 44. Prince of Wales, 1 year, Harry Ingersoll, Esq., Phil'a., \$95.
 45. Prince of Wales 2nd, 1 year, Mr. Bullock, Albany co., \$50.
 46. Mount Hope, 1 year, Linus Birdseye, Esq., Conn., \$90.
 47. Lir Arthur, not sold.
 48. Earl Piercey, not sold.
 49. Prince Albert, 3 years, Mr. W. Peck, N. Y., \$155.
 50. Dairymen, calf, H. Parsons, Esq., Canada, \$150.
 51. Red Rover, not sold.
 52. Trafalgar, calf, H. Morris, Esq., Westchester, N. Y., \$110.
 53. Blanch Rose, 3 years, H. Morris, Esq., do., \$76.
 54. Skylark, 6 years, W. R. Gaston, Esq., New Jersey, \$75.
 55. Lauderdale, not sold.
 56. Venus, 1 year, L. Birdseye, Esq., Conn., \$75.
 57. May Flower, not sold.
 58. Butter Cup 3rd, calf, Mr. O'Hara, Madison co., \$50.
 59. Lilack 4th, calf, Gen. Geo. Cadwallader, Philadelphia, \$50.
 60. Enchanter, calf, Peter Keese, Esq., Essex, N. Y., \$100.
 61. Sir Walter, calf, Harry Ingersoll, Esq., Philadelphia, \$20.
- It will be seen by the above, that 32 cows and heifers, averaged \$201.62½ each, \$6,430
Eight heifer calves averaged \$129.37½, 1,035
One three year old Bull, 155
Six yearling bulls averaged \$219.16½, 1,315
Six bull calves averaged \$120.83, 725

Average of the 53 sold, \$182.64, \$9,660

[With the view of keeping the farmers and breeders of our own State posted up with respect to the owners of high-bred stock, and as a matter of reference hereafter in tracing pedigrees; we extract from the Cultivator the account of Vail's cattle sale, near Troy, with prices and names of purchasers. It will be seen that several of them are now owned in our own State. The hint thrown out in one of the reports of our State Exhibition, that there should be a State Hen Book, is well worthy of attention. Without an official register is made and kept of thorough bred stock and their issue, there is constant danger of imposition. Those gentlemen who have shown their liberality in purchasing pure bloods, at high prices, are especially interested in this, and to prevent grades being palmed off under false representations. The present high prices of Durham stock are a great temptation to this, and it should not be forgotten that the only safety of purchasers is in a well-authenticated pedigree, running back through a line of ancestry sufficiently long to confirm the blood. Many of our grade animals are beautiful in figure, often equal to the thorough bred, but there is no certainty in their issue, and they cannot be relied upon for breeding.]

Method of Curing Prize Hams.

The following recipe for curing prize hams, after the manner practised in Maryland and Virginia, has been published before. It is seasonable again, and its usefulness will commend it to those interested in the kind of knowledge it imparts.

T. E. HAMBLETON'S RECIPE, 1ST PREMIUM.—To every 100 pounds pork, take 8 pounds of G. A. salt, 2 ounces saltpetre, 2 lbs. brown sugar, 1½ ounces of potash, and 4 gallons of water. Mix the above, and pour the brine over the meat, after it has laid in the tub some two days. Let the hams remain six weeks in brine, and then be dried several days before smoking. I have generally had the meat rubbed with fine salt when it is packed down. The meat should be perfectly cool before packing.

J. GLENN'S RECIPE, 2ND PREMIUM.—To 100 pounds pork, take half a bushel and half a peck of salt, 3 pounds of saltpetre, 3 pounds sugar, and 2 quarts molasses. Mix—rub the bacon with it well; keep on for three weeks in all; but at the end of nine days take out the hams, and put those which were at the top in the bottom.

L. BROOKE, JR.'S RECIPE, 3RD PREMIUM.—One bushel fine salt, half bushel ground alum salt, one and a half pounds saltpetre to the thousand pounds pork, left to lie in pickle four weeks, hung up and smoked with hickory wood until the rind becomes a dark brown.

C. D. SLINGLUFF'S RECIPE, 4TH PREMIUM.—To 100 pounds green hams, take 8 pounds ground alum salt, 2 pounds brown sugar, or molasses equivalent, 2 ounces saltpetre, 2 ounces pearl ash, 4 gallons water; dissolve well, skimming off the scum arising on the surface. Pack the hams compactly in a tight vessel or cask, rubbing the fleshy part with fine salt. In a day or two pour the above pickle over the meat, taking care to keep it covered with the pickle. In four or six weeks, according to the size and weight of the hams, (that is to say, the longer period for heavy hams,) hang up to smoke, hook up, smoking with green hickory wood. I have put up hams for the last twelve or fifteen years by the above recipe, with uniform success, equal at all times to the sample now presented.

To the above we add the following, which we, as well as many others, have very satisfactorily proved:

For every 100 pounds of meat, take 5 pints of good molasses, (or 5 pounds of brown sugar,) 5 ounces saltpetre, and 8 pounds rock salt; add 3 gallons of water, and boil the ingredients over a gentle fire, skimming off the froth or scum as it rises. Continue the boiling until the salt, &c., is dissolved. Have the hams nicely cut and trimmed, packed in casks with the shank end down, as the pickle will thus strike in better. When the pickle, prepared as above, is cooled to blood heat, pour it over the hams. They may lie in pickle from two to six weeks, according to the size of the pieces or the state of the weather, more time being required in cold than in warm weather. Beef or mutton hams, intended for smoking and drying, may be cured according to this mode, and will be found excellent.

Much of the goodness of hams depends on smoking. They should be hung at such a distance from the fire as not to be heated. They should also be hung up with the shank end downward, as this will prevent the escape of their juices by dropping. Small hams, wanted for immediate use, will answer with two weeks' smoking, but larger ones, and those wanted for keeping, should be smoked four weeks or more.

In addition to the above, we add the following,

which we have tried, and believe to be the best of all, and is quite a common method in Chester county. By it all the juices and virtues of the ham are saved, none absorbed, by the pickle:

Lay the hams on a plain board, and as an average quantity, but which may be increased or lessened according to size, rub in well, and spread on the surface one pint fine alum salt, and one tea-spoonful saltpetre. Nothing more will be required than to let them lay till time to smoke, which will be in six or eight weeks, and hang up with shank end down. If the salt should be absorbed, some more may be rubbed on.

The Lobos Islands and Guano.

The following from "Dickens' Household Words," eclipses all previous estimates we have seen as to the amount of Guano at the Lobos Islands. Whether correct or not there is at least no immediate danger of the supply running short. Our own difficulties with Peru as to her right to the Islands, which was questioned by the late secretary of State, have been all settled, and her title definitely acknowledged. It is probable the price of Guano, will be about the same as heretofore.

"The three Islands lie nearly due north and south the breadth of the passage between them being about a mile in one instance, and two miles in the other. The south island is as yet untouched, and from a visit I paid it, I should suppose it to contain more guano than is found in either of the others. The middle island, at which we traded, has been moderately worked, but the greatest quantity of Guano is taken from the north island. In their general formation the islands are alike. They all rise, on the side next the main land, in a perpendicular wall of rock; from the edge of the precipice, the guano then slopes upwards to the centre of each island, where a pinnacle of rock rises above the surface; from this point it descends to the sea by a gentle declivity, the guano continuing to within a few feet of the water. Each Island has, at a distance, the appearance of a flattened cone, but they have all been originally broken into rocky hills and valleys. The deposits of guano having gradually filled up the valleys, and risen above the rocks, the cuttings of the guano diggers vary from a depth of eighty or a hundred feet, to merely a few inches.

"The guano is regularly stratified; the lower strata are solidified by the weight of the upper, and have acquired a dark red color, which becomes gradually lighter towards the surface. On the surface it has a whitey-brown light crust, very well baked by the sun; it is a crust containing eggs; being completely honeycombed by the birds, which scratch deep, oblique holes in it to serve as nests, wherein eggs, seldom more than two to each nest, are deposited. These holes often running into each other, form long galleries with several entrances, and this mining system is so elaborately carried out, that you can scarcely put a foot on any part of the Islands without sinking to the knee.

"Though the Islands are not large—their average circumference being about two miles—the accumulation of guano is almost incredible. Calculations as to the probable quantity must, on account of the varying depths of the deposits, be very uncertain. I

remember making an average of the depth, and deducting therefrom a rough estimate that the three small Islands alone contain upwards of two hundred and fifty millions of tons of pure guano, which, at the rate of supply which has been going on during the last five or six years, would require about one hundred and eighty years for removal, and at its English value—which, after deducting freight, is about £5 per ton—would be worth twelve hundred and fifty millions sterling. This is exclusive of vast quantities which have been used by the Peruvians themselves."

WORK FOR THE MONTH.**Farm.**

Before ground is too frozen, and while teams are in better condition than they will be next Spring, plow and subsoil, especially on heavy lands, the fields for coming crops of corn; attend to stock in barn-yard; provide sheds for shelter; fodder judiciously with straw, corn-fodder, and occasionally hay; remembering it is easier to keep them in a thriving condition, than to get them into it. Cows and young stock should be well cared for in well ventilated stables, and supplied with a few carrots, beets, or turnips each day; use the card frequently. Have water always at hand, and two or three lumps of rock salt in yard for stock at pleasure to lick. Economise hay and straw by use of straw-cutter. Corn fodder should also be cut, before feeding, and if no steamer is at hand, empty the tough end of the stalks, or butts, which will generally be refused by the cattle, into a large hogs-head, into which pour boiling water, and cover the top. After being softened by this process feed, with a little bran or meal sprinkled over. Have manure, as it gathers in barn-yard, collected under a rough shed in centre of yard. Provide some soil, or muck from swamps, which mix through it as heaps are forming, and give occasionally a sprinkle of plaster. Prevent drainage passing off, by collecting liquid in a pit at one end, which should occasionally be pumped up, and poured or watered over the surface. Manure saved in this way is worth at least fourfold more in spring, than where it is scattered over yard, and exposed to weather. Collect and house carefully all tools and farming utensils. Open the mouths of drains and ditches. Avoid turning stock into pasture fields in soft weather. Secure corn cribs from mice. Haul fuel when ground is frozen. Give plenty of litter, either straw or leaves from woods, to all stock, cattle, horses, sheep, and swine. For the latter boil small potatoes, pumpkins, and any refuse vegetables.

Fruit Orchard.

Attend to general directions of last month. Bank up the earth around your trees to keep off mice. Dig in manure, or guano when ground is not frozen. Take advantage of open weather, to prepare for spring planting, by deep plowing and subsoiling. Where the object of pruning in young trees is to promote growth, now is the proper time. The amount of food collected by roots through winter is thus confined to

remaining branches, instead of being distributed through tree and lost.

Flower Garden.

The principal work for garden in this month, will be cleaning up borders and decayed plants and weeds, renewing walks, tying up to stakes and protecting half hardy plants and shrubs. Running roses should be secured firmly to their stakes or trellises, to preserve them from being broken by storms. Chromatellus, Solitaires and such like, not perfectly hardy, should be well covered with straw or cedar boughs. Teas and other dwarf varieties may be protected with cedar boughs tied together at top. Mulch well all roses and plants with short manure. Tie up junipers and other bushes with straggling branches.

Persons wishing early blooming plants in spring, may keep them through winter in cold frame. Dig out a hole a foot deep of size required, and fit in a box, sloping to the south if possible, two feet deep at back, and 18 inches in front, bank up earth from the hole on outside, and lay a bed of coal ashes in bottom, to make drainage and prevent ingress of worms. Cover with sash, and protect in severe weather with straw mats and shutters. Verbenas, Primrose, Polyanthus, Pansies, Petunias, &c., will keep nicely in this way, and bloom early. Forward annuals in pots by placing them in frame early in spring.

See that plants in windows are not killed with watering. The only rule for this is appearance of soil in pots, water only when it appears dry. Keep them near light and turn round occasionally. The farther plants are from light give the less water, change water in hyacinth glasses, every week or ten days.

Vegetable Gardens.

Attend to directions of last month. Finish covering with straw or litter, everything that needs protection. Commence composting manures, so as to prepare them for spring use. Attend to arranging and securing all such seeds as will be required for spring planting.

Address to the Farmers of Pennsylvania.

We, the undersigned, Brewers and Malters of the City and County of Philadelphia, embrace the present opportunity of offering a few facts for the consideration of the Farmers of Pennsylvania, in regard to the demand that exists for Barley, thereby hoping that their attention may be directed to its cultivation.

Within the county of Philadelphia, there is annually consumed for the purposes of Brewing, about six hundred thousand bushels of Barley, supplied from the State of New York, which has sold in Albany, its general depot, the past three years at an average price of from seventy-five to ninety cents per bushel, which, by comparison with the prices of other grains within the corresponding period, has yielded a much larger profit to the cultivator. The demand is continually increasing. About equal quantities of the two and four-rowed are used, and the so called spring barley is much preferred to the winter grain for the purpose of Malting.

The State of New York now produces an annual

average crop of about two million five hundred thousand bushels, which meets with ready purchasers during the months of September, October and November; but the farmers there, continuing to sow the seed each year of the previous crop on the same land, the quality of the grain is deteriorating: this is of great importance both to the raiser and consumer, as the heaviest, brightest, and cleanest Barley always commands the best price and readiest sale in the market.

The present time is conceived to be a favorable one for the introduction of its culture in our own State, and its becoming a staple article in our market, whereby the sum of five hundred thousand dollars, or more, now annually transmitted by the Brewers of this city of New York, would be enjoyed by the agriculturalists of our own State.

The entire adaptation of the climate and soil of Pennsylvania to the cultivation of Barley—the increasing demand in this city, as well as the neighboring ones of New York and Baltimore—the new facilities that are opening for its transportation from all parts of the State to markets where it finds cash purchasers, all unite as strong inducements to the agriculturalists to turn their attention to its production.

Should any further information be desired, it will be cheerfully furnished by addressing either of the undersigned, from whom seed may be procured.

POULTNEY, COLLINS & MASSEY,

Brewery Tenth and Filbert Streets.

ROBERT SMITH,

Brewery Fifth and Minor Streets.

WILLIAM C. RUDMAN,

No. 121 Green Street.

W. BANKSON TAYLOR,

Vine Street below Eighth.

GEORGE W. GRAY,

No. 24 South Sixth Street.

ROBERT NEWLIN,

No. 86 North Second Street.

FREDERICK GAUL,

Cor. of New Market and Callowhill.

WILLIAM GAUL,

No. 55 North Fourth Street.

DITHMAR & BUTZ,

No. 520 North Third Street.

PETER HALL,

No. 50 North Sixth Street.

F. & W. S. PEROT,

Vine Street below Fourth.

PHILADELPHIA, September 25th, 1852.

Chester County Horticultural Society.

The stated meeting of the Society for November was held, as usual, in its Hall, last Saturday afternoon, the 20th inst. In the absence of the regular officers, Dr. J. K. Eshelman was called to the Chair. The following premiums were awarded:

To P. Morris & Co., for the best display of Chrysanthemums; to A. V. Painter, for 2nd do. do.; to P. Morris & Co., for best display of Cut Flowers; to Jonathan C. Baldwin for the best peck of apples; to L. P. Hoopes for 2nd do. do.; to same, for best display, not less than six varieties, do.; to Jonathan C. Baldwin, for 2nd do. do.; to Dr. J. K. Eshelman, for the best 1 dozen pears; to the same, for the best display, not less than 4 varieties, do.; to P. Morris & Co., for the best 6 heads of Celery; to Jos. Hoopes for the best 3 heads of Cauliflowers. A very fine display of specimens were exhibited, especially of apples. There were by A. H. Darlington 22 varieties of apples, viz: Hayes, French Pippin, Pennock, People's Favorite, Grindstone, Grey and Carthouse,

Sheep's Nose, Vandiver, White and Red Winter Sweet, Rambo, Baldwin, Hubbardson's Non-Such, Smokehouse, Birmingham, and 5 varieties unknown. J. C. Baldwin, 11 varieties of apples; Dr. J. K. Eshelman, Pears, viz: Glout Morceau, Le Cure, Beurre, D'Arenberg, Bleekers' Meadow, Winter Nelis, and Beurre Diel; Mrs. U. V. Pennypacker, a plate of Isabella Grapes of delicious flavor; L. P. Hoopes, Fall-water apples, very fine; P. Morris & Co., Celery and Cauliflowers, 18 specimens of Chrysanthemums, and a bouquet; also several varieties of Plants in bloom, viz: Fuschia Syringiflora Arborea, Cuphea Platycenta, Begonia Fuschoides, Chinese Primroses, Double Blue Violets, Lechnaultia Formosa, Ardisia Crenulata, Erica Mediterranea; Josiah Hoopes, vegetables, viz: Cauliflowers, Celery, Tomatoes, Carrots, Parsnips, Salsify, Brocoli, Curled Cabbage; U. H. Painter, celery. The time of holding the Stated Meeting was changed from the third to the second Saturday of the month. The following gentlemen were appointed a committee to nominate standing committees for the ensuing year, viz: D. Townsend, A. Marshall, Pierce Hoopes, Joshua Embree, and A. H. Darlington. Mrs. Dr. Pennock and Dr. Isaac Walker were duly elected annual members. A communication from Judge Andrews, of Del. county, was read, in relation to the "Garrigues Grape," of which specimens were exhibited at the autumnal Exhibition, stating it to be his belief that it was a seedling of the Isabella grape.

Continuation of Reports from the late Exhibition of the State Agricultural Society at Lancaster.

Method of making Butter on the Farm of Wm. Jessup, Montrose, Susquehanna county, Pa.

The milk cellar is deep, cool and well ventilated, being provided with shutters to the windows, so as to exclude the sun when necessary; it being desirable to keep the milk and butter of an equal temperature. The milk is strained in tin pans and stands about 36 hours. The churn is a common barrel churn, worked by an upright dasher, and moved by a dog power. Cost of power and churn, \$13. The milk is churned every morning. The butter, on being taken from the churn, is worked until all the butter-milk is out. A half ounce of pulverized rock salt is then added to the pound, worked in, and it is left for twenty-four hours, when it receives a second working, and is then packed in firkins and tubs. This is the usual method pursued by the Susquehanna county dairymen. They learned from the Orange county dairymen.

Mr. Dickey's Method.—This butter was made in a dairy of twenty cows.

The process of manufacturing it is this: After the milk is strained, it is set away, in the pans, which are surrounded by spring water. In each pan is put about one gill of sour milk, (which is kept for the purpose,) which causes fermentation, and hastens the separation of the cream. The pans are allowed to remain thirty-six hours before skimming, and no longer. Then the cream is taken off and put in large tin cream pots, where it remains, immersed in water, until time for churning; being well stirred at each addition of cream. We churn twice a week, by horse power—hence the cream for churning is three days collecting for the other four. The cream is strained into the churn at a temperature of 56 degrees, and churned about one hour. We never allow the gas, which is set free in the first few revolutions of the churn, to escape—thinking, that by retaining it, we improve the flavor of the butter. When the butter

is sufficiently gathered, it is taken out and placed on a triangular table—the base of which is lower than the apex—on which is placed a fluted cone, having its apex affixed to the apex of the table, after the manner of a ball and socket. This cone is rolled over the butter occasionally, turning up the edges until the butter milk is completely worked out. Then the salt is worked in, after which, it is set away in coolers, until the next morning, when it is again thoroughly worked on the table, weighed in half pound lumps, and printed in a box print. I send my butter to the Baltimore market, where but ten pounds have been sold below 25 cents per lb. this season.

E. V. DICKEY.

WALKER'S METHOD.—This was made in a well ventilated milk cellar. The most entire neatness is observed in every thing connected with it. The cream skimmed before the milk thickened, stirred frequently till sufficient to churn, which must done slowly. When well gathered, washed in cold water and salted to the taste. A very little saltpetre added to that designed for keeping.

S. M. WALKER.

J. F. GARRARD'S METHOD.—In compliance with your request, I herewith transmit you the mode of manufacturing butter, such as exhibited by the undersigned. In the first place, I would say it was made from six Durham cows in the following manner. The milk, as soon as taken from the cows, is strained into stone milk pans, about four inches deep, where it is allowed to stand twenty four hours; it is then skimmed with as little milk as possible and put into a stone crock, and kept cool and sweet. When churned, and the milk worked out of it, which is done entirely with the butter paddle, (we do not wash our butter,) a sufficient quantity of the finest quality of salt is added and thoroughly worked in. It is then printed as per sample. Respectfully Yours,

JONA. F. GARRARD.

N. B.—We use a churn of my own getting up. It is called "Garrard's Revolving Barrel Churn." We have churned in it forty pounds of butter from fourteen gallons of cream at one time, in thirty minutes.

COATES' METHOD OF MAKING CHEESE.—The nights milk which is intended to be warmed, is strained into a large copper boiler, and put into one of Molls' Orange county furnaces, and water is put into the kettle. The fire, consequently, does not come near the milk, to scorch or affect it in the least. The remainder of the milk is strained into a tub or vat, where the morning's milk is also put, and the heated milk is also poured into the tub, so as to have it as near the temperature that milk is, when drawn from the cow, as possible. The rennet is then put into it. The amount depends entirely upon its strength. It is then all thoroughly stirred together, and allowed to stand for half an hour, when the curd is cut up with a curd cutter, and in half an hour is ready to have the whey dipped in the boiler, for the purpose of scalding the curd. It must not be hurried too much in this process, else you will diminish the amount of curd. The hot whey is then poured on to the curd and allowed to remain until it will squeak when slightly compressed by the hand. After this is dipped off, a pail of pure cold water is poured upon it, and remains until the whole is cooled. It is then put into a sink and salted; a tea cup being allowed for 15 ounces of curd. It is then put into the press, and in half an hour is turned, and then remains for 24 hours, when it is taken out, and a bandage is then put on, and it is pressed in a heavy press for 24 hours, and is then taken to the cheese house, and is greased and turned daily.

C. Q. CURTIS.

Susquehanna co., Pa.

PROCESS OF MANUFACTURING CHEESE AS FURNISHED BY JOB HAYES, OF CHESTER CO., PA.—The milk, immediately after being drawn from the cow, is strained into large tubs, and a sufficient quantity of rennet added to curdle the milk. When curdled, it is broken up fine with the hand, and then let stand for about half an hour, when the whey is drained off. It is then broken up with the hand, and a sufficient quantity of salt added to make it palatable, when it is placed in vats and subjected to pressure in proportion to the size of the cheese, for 48 hours, being turned four times while pressing. Next, they are placed upon shelves in a dry and airy room, and turned and greased daily.

The object throughout, with the manufacturer, is to imitate nature.

Report of the Committee on Domestic Wines, Bounces, and Cordials, at the late State Fair.

The Committee on Domestic Wines, &c., respectfully report, that they carefully examined and tested samples of the different Wines, Cordials, and Ciders exhibited at the Fair.

The Crabb Apple Cider of Mr. H. G. Herr, of Lancaster county, is sweet and pleasant to the taste, and so highly charged with gas, as to merit the appellation of "sparkling." It retains, in a great degree, the flavor of the fruit, but as Mr. Herr declined to communicate his recipe, the Committee do not feel warranted in recommending it as a beverage, nor can they, in the absence of all information from him, undertake to say whether or not it would be economical and advisable to prepare it for general use.

Mr. Joseph Konigsmacher, of Lancaster county, exhibited Mountain Crab Apple Cider, which the Committee recommend as a mild and pleasant drink.

The Cider of Mrs. Horst, of Lancaster county, is clear and strong, and although eight years old, is as sound and sweet, apparently, as when first made.

The Currant Wine of Jacob B. Tschenty, of Litiz, Lancaster county, possesses much of the flavor and odor of the fruit.

The Wines manufactured from Catawba and Isabella grape, by John M. Summy, of Lancaster county, are rich, fine, and luscious. They can fairly be classed among the good kinds of sweet wine.

Mr. Jacob B. Shuman, of Lancaster county, exhibited some Cherry Bounce, and a variety of domestic Wines. His Blackberry, Elderberry, and Currant Wines, are excellent domestic Wines.

Mrs. Wealthy Hale, of Bradford county, exhibited some Currant Wine, three years old, which, although free from all alcohol, except that formed by the fermentation of the wine itself, is sweet, smooth and fragrant. Mrs. Hale puts in a ten gallon keg ten quarts of currant juice, and thirty-three pounds of maple sugar, and then fills the keg with warm water. In a few days it begins to ferment. After it has worked itself clear, she lets it stand in a cool place, three or six months, when she bottles and seals it well. A few good raisins may be added to each bottle.

Mr. N. Longworth, of Cincinnati, Ohio, exhibited some sparkling Catawba, and sparkling Isabella Wines, both possessing a fine bouquet, and fairly comparable with many of the brands of Champagne. As a rich and fragrant domestic Wine, the Committee consider it entitled to rank in the first class. The Committee award a premium of \$3 to Mr. Longworth, for the best domestic Wine.

They award a premium of \$3 to Mr. Jacob B. Shuman, of Lancaster county, for the best Cherry Bounce,

and for the variety of good domestic Wines exhibited by him.

They award a premium of \$3 to Mrs. Wealthy Hale, of Bradford county, for the best Currant Wine.

They recommend the Executive Committee to grant a premium of \$1 to Mr. Jno. M. Summey, of Lancaster county, for the Sweet Wines exhibited by him, and a premium of \$1 to Mr. Jacob B. Tschenty, of Litiz, Lancaster county, for his superior currant Wine.

JAMES B. WAGER, }
JAMES REYNOLDS, } Committee
WM. M. WATTS. }

Pennsylvania Horticultural Society.

The stated meeting of this Society was held in the Chinese Saloon, on Tuesday evening, Nov. 16th. Gen. Patterson, President, in the Chair.

The exhibition was very fine, and comprised several collections of choice Chrysanthemums, Green House plants in pots, Pears in variety and beautiful specimens, luscious Grapes, and handsome Apples, together with extensive tables of Esculents.

Premiums awarded on the occasion were as follows:

Chrysanthemums—For the best 12 varieties, to Thomas Fairley, foreman to Robert Buist; for the second best, to Henry A. Dreer. **Plants in Pots**—For the most interesting collection, to Thomas Meehan, gardener to C. Cope; for third best, to Maurice Finn, gardener to John Lambert. **Bouquet Designs**—For the best, to Thomas Meghran, gardener to R. Cornelius; for the second best, to Thomas Meehan; and for the best basket of cut flowers to the same.

The Committee notice the following new plants, from the houses of C. Cope, exhibited for the first time, viz: *Jatropha pandurifolia*, *Bouvardia leiantha* and *Thea assamica*. Also, a splendid collection of 34 cut flowers of Pompon Chrysanthemums and 25 of the large sorts, of the newest varieties, from the collection of J. Francis Knorr, West Philadelphia.

By the Committee on Fruits—**Pears**—For the best 12 specimens, the Duchesse d'Angouleme, to Isaac B. Baxter; for the second best, to Glout Moreau, to Francois Gouin, Mrs. J. B. Smith's Gardener. **Apples**—For the best 12 specimens, Reinette du Canada, to the same; for the second best, Roman Stem, to N. W. Roe.

And special premiums—One, of three dollars, to Wm. Johns, for a choice display of Grapes, embracing several varieties; another, of two dollars, for a basket of Grapes, the Black Damascus, just arrived by Steamer Atlantic, from England. The Committee notice, on this occasion, choice collections of Pears, which make a very fine display, and many of them of delicious quality.

By the Committee on vegetables—**Celery**—For the best six plants, to Wm. Early, gardener to Charles Yarnall; for the second best, to Thomas Meehan, gardener to C. Cope. **Broccoli**—For the best five heads, to Anthony Felten, Jr. **Brussels Sprouts**—For the best silk stalks, to Thomas Meehan; for the second best, to Maurice Finn, gardener to John Lambert. For the best display of vegetables, by a market gardener, to Anthony Felten, Jr. For the best, by a private gardener, to Maurice Finn; for the second best, to Thomas Meehan—and a special premium of two dollars to Thomas Meghran, gardener to R. Cornelius for a superior display.

The Committee call the attention of the Society to a beautiful specimen of celery, just arrived from England, deposited by J. Kendrick.

Ad interim report of the Fruit Committee—The

Committee on Fruits respectfully report, that since the last meeting of the Society, they have had an opportunity of examining a variety of fruits from various parts of the State, and many of them new kinds, of Pennsylvania origin.

From Peter Weaver, Montgomery county—Thomas' October Plum—medium size, pale red, "good" quality, native of Upper Dublin township.

Thos. P. James—the *Frost Gauge*, good specimens.

Thos. Wharton—Herbemont Grape, bunches large.

Samuel Ott, Montgomery county—*Petre Pear*, eaten Nov. 13th, specimens, fine size, wilted, rich, full, Petre flavor. **Apples**—*Winter Pearmain*, *Red Sheepnose*, *Roxbury Russet*, *Newtown Pippin*, specimens remarkably large and fine.

Wm. G. Waring—The *Boalsburg and Dale Apples*, both natives of Centre co. Pa.

D. C. McCammon—The *Pittsburgher*, or *Pittsburgh Pippin*, from Dauphin co., large and fragrant.

Charles Kessler, Reading—Two *Seedling Apples*, from Berks county—one from Robeson township, large—the other from Rusecombmanor township.

Alan W. Corson—The *Crawford Apple*, a fine seedling, of Montgomery co., not yet in order for eating.

H. R. Noll—No. 1—A large Apple, mottled and striped with red, on a greenish yellow ground, quality good, originated with Jas. Adams, of White Deer township, Union co., Pa. No. 2—Medium size, conical, red apple, good, originated with Albert Byers, of Lewisburg, from a seed of a Belle fleur.

J. H. Houston, & Co.—The Wm. Penn, a large grey, native apple, of high flavor, from Columbia.

Jacob Cocklin, of York—*Cocklin's Favorite*, small, roundish, truncated apple, native of Allen township, Cumberland county; quality very good.

J. W. Thorne—People's Choice—a small, red apple, with peculiar markings, quality "very good," native of Chester county, Pa.

Besides the above fruits, fine specimens of the following kinds were also examined, viz: Summer Sweet Paradise; Winter Sweet Paradise; Cocklin's White Winter; Jonathan; Large Cole; Sterneman's Sweet; Gloria Mundi and Fall Pippin.

Also, a collection from Jas. H. Watts, Esq., from Rochester, containing fine specimens of Bailey's Sweet, Jonathan, Northern Spy, Pomme Gris and Canada Red.

Amendment of the By-laws offered by Dr. A. L. Kennedy, lies over for consideration.

Objects shown—by Thomas Meehan, Gardener to C. Cope, twenty-four select Green House Plants; twelve choice Chrysanthemums; a Bouquet and Basket of cut Flowers, and a display of Vegetables, consisting of thirty-two varieties.

By Robert Buist's Foreman, 12 very fine Chrysanthemums.

By Maurice Finn, Gardener to John Lambert, a collection of Plants and a display of Vegetables.

By Henry A. Dreer, twelve select Chrysanthemums.

By J. Francis Knorr, about 60 varieties of the choicest Chrysanthemums.

By Wm. Johns—*Grapes*—Black Hamburg, Purple Chasselas, Muscat of Alexandria, Malaga, Tokay, Hansterretto, Chasselas de Fontainebleu, and Catawba.

By Mrs. J. B. Smith's Gardener—*Apples*—Reinette Franche; Reinette de Canada. *Pears*—Beurre d'Arenberg; Belle de Martigne; Doyenne Siculle; St. Germain, and Vert longue.

By Isaac B. Baxter, *Pears*—Mons. Le Cure, Duchesse d'Angouleme; Broom Park; White Doyenne, and Napoleon.

From J. H. Watts, Rochester—*Apples*—Bailey sweet, Northern Spy, Canada Red, Pomme Gris, and Jonathan.

By N. W. Roe—*Pears*—Holland Burgamot. *Apples*—The Autumn Pearmain and Roman Stem.

By Geo. D. Parrish—A specimen of the Belle Angevienne Pear, which he bought at Paris—its weight was full 33 ounces.

By H. W. S. Cleveland—Winter Nelis Pears.

By D. C. McCammon—Pittsburgher Apples.

By Thos. Meghran, gardener to R. Cornelius—A display of vegetables, a bouquet and basket of cut flowers and apples.

By Anthony Felton, Jr.—A large display of vegetables.

Celery, by H. Wetherill, James Jones, William Early, gardener to Charles Yarnall, and J. Kendrick.

THOS. P. JAMES, Rec'g Secretary

Agricultural and Horticultural Works.

THE subscribers have on hand and for sale, a large assortment of Agricultural and Horticultural Works for the Farmer and Gardener, among them are the following:

Youatt on Horses,
" " Pig,
" " Dog,
Youatt & Martin on Cattle,
Complete Farmer & Gardener, by Fessenden,
Downing's Country Houses,
Downing's Country Houses,
Youatt on Sheep,
Stephen's Book of the Farm,
Norton's Elements of Scientific Agriculture,
Cottage and Farm Bee Keeper,
Johnston's Agricultural Chemistry,
Buist's Flower Garden Directory,
Buist's Family Kitchen Gardener,
Breck's Book of Flowers,
Buist's on the Rose,
Allen's American Farm Book,
Browne's American Muck Book,
Darlington's Flora Cestrica,
" Agricultural Botany,
Guenon on Milk Cows,
Fessenden's Farmer's own Book,
Eubank's Hydraulics,
Also, all the leading Agricultural and Horticultural Periodicals

PASCHALL MORRIS, & CO'S.
Agricultural Warehouse and Seed Store, West Chester, Pa.

THE MODEL SEED STORE,

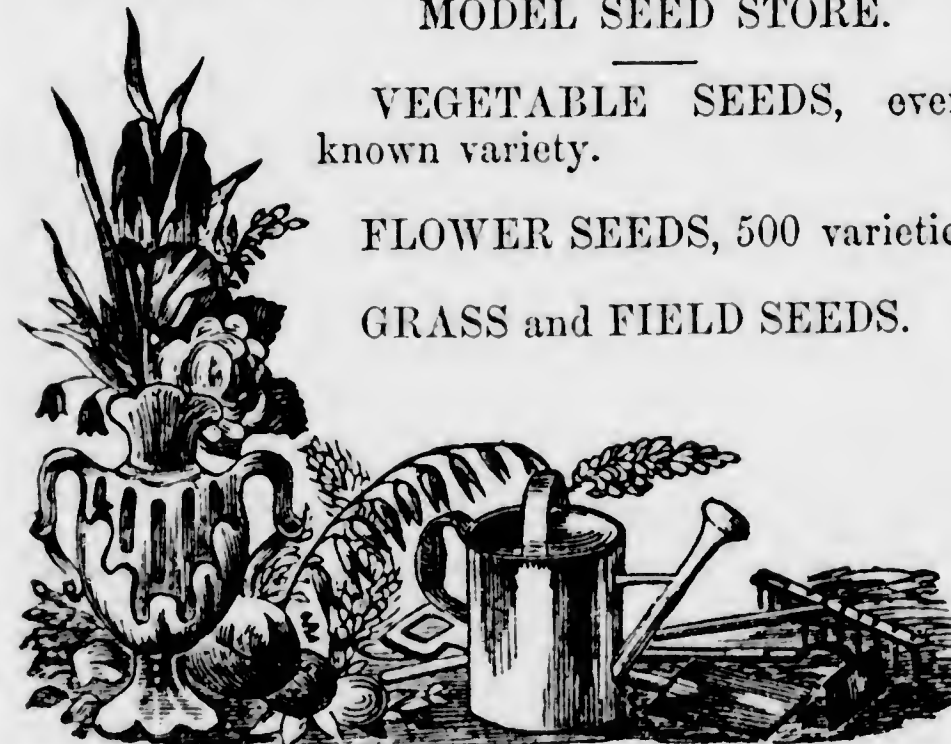
300 Market Street, above 8th street, Philadelphia.

MODEL SEED STORE.

VEGETABLE SEEDS, every known variety.

FLOWER SEEDS, 500 varieties

GRASS and FIELD SEEDS.



Agricultural and Horticultural Implements.
THOMAS F. CROFT, Proprietor.
Agent of Penna. Farm Journal

CHOICE SHANGHAI FOWLS.

THE subscriber offers for sale a few pairs of choice young Shanghai fowls, sired by the celebrated cock "Washington," now owned by Dr. McIntoch, and reputed to be the best fowl in Pennsylvania. Also a few pairs of White Shanghaes.

H. WHITNEY
No. 311, Market st., Phila.

August, 1852

THE NEW YORK AGRICULTOR.

A WEEKLY JOURNAL IN LARGE NEWSPAPER FORM.

Devoted to the interests of the COMMERCIAL as well as PRACTICAL FARMER and PLANTER, the STOCK BREEDER, the RURAL ARCHITECT, the FRUIT and ARBORICULTURIST, the MARKET and KITCHEN GARDENER, and the FLORIST: together with a complete summary of the most important FOREIGN and DOMESTIC NEWS. Published every Thursday.

TERMS.

One Copy,	- - -	\$2 per annum.
Three Copies,	- - -	5 " "
Five Copies,	- - -	8 " "
Ten Copies,	- - -	15 " "
Fifteen Copies,	- - -	20 " "
Twenty Copies,	- - -	25 " "

The first number will be issued on Thursday, Oct. 21. Postage, Half a cent per week.

All Postmasters and others, disposed to act as Agents, will be furnished with Prospectus and Specimen numbers, on application to the Publishers.
A. B. ALLEN & Co., 189 Water St., N. Y.

THE NEW YORK FARM AND GARDEN.

A MONTHLY JOURNAL, OF THIRTY-TWO PAGES, DOUBLE COLUMNS, IMPERIAL OCTAVO; MADE UP, PRINCIPALLY BY SELECTIONS FROM THE WEEKLY PAGES OF "THE NEW YORK AGRICULTOR."

This periodical will be devoted exclusively to the Farmer and Planter, the Stock Breeder, the Rural Architect, the Nurseryman, the Gardener and the Florist.

Each number will be filled entirely with PERMANENTLY VALUABLE reading matter. No advertisements allowed in its columns; and not even the large heading, or terms and contents, usual on the first and last pages of similar journals, will be permitted. All such matter will invariably appear on the cover. Thus, the numbers of the FARM AND GARDEN, bound up at the end of the year, will have the same appearance as a book. This is a new feature in periodicals of this class, and should the more highly commend it to public favor. Published on the first day of each month.

TERMS.

One Copy, \$1.00 per annum. Three Copies, \$2.00 per annum. Eight copies, \$5.00 per annum.

Lower rates than the above will be made with Agricultural Societies or Clubs, by taking a larger number of copies. Postage, only one-half a cent per month.

Postmasters and others, disposed to act as Agents, will be furnished with Prospectus and Specimen Numbers, on application to publishers.

A. B. ALLEN & Co., 189 Water St., N. Y.

INDUCEMENT TO GENTLEMEN ACTING AS AGENTS.—Any person forwarding us ten or more subscriptions each, for either of the above papers, will be entitled to a copy, gratis, for one year.

Seed and Agricultural Warehouse.

No. 29, Market Street, Phila.

WHERE the subscriber has opened an extensive assortment of GRASS and GARDEN SEEDS, of his own raising, or recent importation, and warranted to be as represented.

He is, also, manufacturing all the most approved Agricultural Implements, among which he would call the attention of Farmers to a new article of Plow, of his own invention, called Cast-Steel, Extending Point, Self-Sharpening, Surface and Subsoil Plows, which for durability and easy of draft is yet unequalled.

The great advantages these Plows possess over all others, are their peculiar construction and the substitution of Cast-Steel in the place of Cast Iron, which only wants to be seen to be appreciated; all of which will be sold on the most reasonable prices by
May
C. E. ROGERS.

PUMPS, FIRE-ENGINES, CASE IRON FOUNDRIES, &c., &c.

The subscriber manufactures double-acting, lift and force Pumps, (perpendicular and horizontal,) of any size or capacity, which, from their simple construction are well calculated for Factories, Mines, Railway Water Stations, Tanneries, Breweries, Irrigation, Hydropathic establishments, or any other situation where water is required.

VILLAGE AND FACTORY FIRE ENGINES.
Having a double-acting force pump. They are light, easily handled and worked by few men.

Cistern and Well Pumps, for in or out doors.
Garden Engine, with a small size double acting lift and force pump. Arranged with or without action. They are so adjusted that one person can wheel them from place to place, and are well calculated for agricultural and horticultural purposes.

Ornamental cast iron fountains of various styles and prices.
Copper Riveted Hose of all sizes, Hose Couplings, Stop cocks, Lead and cast iron pipes, &c.

I am now ready to receive orders and build Steam Engines from 3 to 15 horse power, portable or stationary, horizontal or perpendicular. I shall build them in as simple a style as possible, combined with strength and sure of getting at every part, and adapted for any purpose required. When an engine is required for raising water of any amount, I can adjust the pump in a compact form easily got at, and disconnected from the engine, when not required for pumping. In many situations steam is the most profitable mode of raising water, as the engine can be used for other purposes to advantage.

Also prepared to receive orders or give information upon lathes, planers, presses, shafting, pulleys, and machinist tools in general, from the firm of Messrs. O. Snow & Co., Meriden, Conn.

Any communications by mail will have immediate attention.
G. B. FARNHAM, 31 Cliff st., near Fulton, N. Y.

AGRICULTURAL IMPLEMENT WAREHOUSE.

No. 65, Chesnut street, Philadelphia.

The subscriber offers for sale, Hay, Straw and Cornstalk cutters; Cornstalk Cutters and Grinders; Corn Cob Crushers and Grinders; Corn Shellers and Separators; Root Cutters of the most approved patterns, warranted to cut, by hand power, from one to two bushels of roots per minute; Bamboorough's celebrated Grain Fans; Grain Cradles, Revolving Hay Rakes, self-sharpening Plows, various patterns; plain point Plows of various patterns; Subsoil Plows, Harrows, Cultivators or Hoe Harrows, churns, Seed Drills, Corn Planters, Corn Shellers, Scythes, Grass Hooks, Spades, Shovels, Rakes, Hoes, Hay and Manure Forks, &c., &c.

Orders received for any and every Agricultural Implement now in use, which will be furnished at manufacturer's prices.

D. LANDRETH,
No. 65, Chesnut st., Philad.

August, 1822.]

TO FARMERS!

LANPHEAR & JEFFERIES.

RESPECTFULLY invite the attention of Farmers and others to their Establishment for the manufacture of Farming Implements and especially to their celebrated

IMPROVED GRAIN FANS,

which they confidently assert will do more work in a shorter space of time, and with less labor, than any other Fan now in use. These Fans, wherever introduced, have given complete satisfaction, and a large number of testimonials could be procured, testifying to their superior merits.

They also manufacture, to order, Agricultural Implements of various kinds: such as *Straw Cutters, Cultivators, Ploughs, Harrows, &c.*

Having had many years' experience in the best shops in the country, they are prepared to do work of a superior quality a little cheaper than any other establishment in the State. They warrant all their work to be what it is represented. A warrant given with every Grain Fan, giving the purchaser the privilege of returning it, should it not do good and quick work.

They will deliver them, free of expense, any distance within fifty miles of the manufactory. Their Shop is at the junction of the Marietta and Columbia Turnpike, Lancaster, Pa., where they will be happy to have Farmers call and examine for themselves.

Price of Fans, No. 1, large size, \$21.00

" " 2, small size, " 22.00

Several good and responsible Agents wanted in the Western and Middle part of Pennsylvania, to whom a fair percentage will be allowed. All orders addressed to Lanphier and Jeffries, Lancaster Pa., will meet with prompt attention. June 1st.

ALDERNEY AND IMPROVED SHORT HORN CATTLE.

THREE thorough bred Alderney BULLS, from nine to eleven months old, raised from the choicest imported stock. Also, two thorough bred young short horn Bulls, ten months old, raised on the farm of Mr. T. P. Remington, near Philadelphia, and for sale by AARON CLEMENT, Agent for the purchase and sale of improved stock, Cedar street, above 9th street, Philadelphia. February 2d, 1852.

IMPORTANT TO FARMERS!

THE farmers who make the most money are those who take advantage of all improvements in agricultural implements or stock, so as to receive in return for their labor as large a yield as possible. The truth of this assertion will be admitted by every one. The only question then, the farmer has to decide when about to purchase a new implement is, which is the best? To those in want of a Wind Mill or Grain Fan,

Bamboorough's Improved Fanning Mill is confidently offered as the very best article of the kind that can be had. Its advantages over all other Fans can be told in a few words, viz: it will do more and better work in less time and with less labor than any other description of fan ever offered to the public. In proof of this statement, I refer to the eight thousand farmers in the United States who have used my fans, and to the proceedings of the various State and county Agricultural Societies held within the last six years, at which my Fan was, in all cases, awarded the highest premiums over numerous competitors. A large number of silver medals and diplomas can be seen by calling at my shop.

The following is one of many similar letters almost daily received:

Lexington, Missouri, Nov. 24, 1851.
Mr. Bamboorough—Dear sir: I see by the reports of the different Agricultural exhibitions that you have been getting more premiums and honors for your celebrated patent grain fan. And why should you not? You surely are justly entitled to any that were to be found, much less its superior. The millers say to all the farmers who bring in their wheat "that it is not very clean; that they ought to get a mill like I got of you to clean their wheat, for we have no use for rolling screens or smut machines, for any grain cleaned on the mills I got of you." JOHN T. NICHOLAS.

P. S.—I am now making out a bill to send to you for a large number of your fans, as soon as the navigation opens. J. T. N. Mills for sale, wholesale and retail, different sizes and prices from 24 dollars, to 26, 28 and 30. I have been in the business 19 years, and made and sold 8,500. Direct to me at Lancaster, Pa. Fans sent to any part of the United States.

JOHN BAMBOOROUGH, Patentee.
Several trustworthy agents wanted to sell rights. Orders may also be sent to Trenton, New Jersey.

CAUTION—All persons are warned from trusting any person on account of the subscriber, unless he has a written order. J. B. July 14. 11.

TO FARMERS—SALINE FERTILIZER.

This preparation is designed to furnish the soil the various mineral or organic materials abstracted from it by plants in the process of vegetation.

It contains a large proportion of the salts of potash soda and ammonia, combined with Bi-phosphate of Lime, Animal Charcoal and other fertilizing matter; the whole forming a highly concentrated manure.

In thus offering a new article to the attention of farmers, the relative value of which remains to be tested by experience, it is desired not to venture upon any assertions respecting it, calculated to excite expectations, which, perhaps, might not be realized; knowing, however, that the principal constituents of this compound have been proved to be highly valuable separately, it is confidently believed that their combination in proper proportions in the "Saline Fertilizer" will form an excellent manure.

DIRECTIONS FOR USE.

The Fertilizer should be applied at the rate of two barrels to the acre, and spread broad-cast on the surface.

If, on opening the barrels, the salts should be found adhering together in lumps, they should be broken, say with the back of a shovel, upon a floor or smooth surface, and, if convenient, a little good dry mould may be added, and well mixed before spreading.

For wheat or rye one barrel per acre may be used before sowing, and lightly harrowed in, and the other applied as a top dressing early in the spring, at the commencement of the first thaw.

Upon grass it should be sown broad-cast, and, if possible, when the ground is wet, or when there is a probability of rain, to dissolve the fertilizing salts; generally late in the fall or early in the spring, will be found to answer best.

Upon corn, it would perhaps be advisable to apply one barrel in the hill, and one broad-cast.

If added to the manure or compost pile, the Fertilizer will doubtless increase greatly the efficacy of the mixture.

The experience of Agriculturists will probably suggest other modes of employing it, as soon as they become satisfied of its utility. It should not, however, in any case be mixed with quick-lime which will cause a loss of ammonia, nor should it be buried deep in the soil.

Price, \$2 20 per barrel.

Manufactured and for sale by
CARTER & SCATTERGOOD,
Office, 84, Arch st., Philad.
June, 1852]

SHANGHAI & COCHIN CHINA FOWLS

For Sale.

The subscriber has on hand a number of young Cochin China & Shanghai Fowls of the latest importation, which he will dispose of at fair prices on post paid application, addressed to

PHILIP HUNT,
West Phila., Chesnut st., 2nd door West of Pub. School House

AGRICULTURAL WAREHOUSE AND SEED STORE.

The subscribers, in addition to their extensive Nursery and Green-House establishments, have established an Agricultural Warehouse and Seed Store, near the Horticultural Hall, West Chester, and are prepared to fill orders by wholesale and retail, of all kinds of improved Agricultural and Horticultural implements, vegetable and flower seeds, &c. Country storekeepers supplied with any of the following, with reasonable discount to sell again:

Garden, Field and Flower Seeds; Horse Powers and Threshers; Wheat Drills and Seed Planters; Ploughs, Harrows and Cultivators; Hay and Straw Cutters; Grain Fan, and Corn Shellers; Vegetable, or Root Cutters; Hand Grain Mills, Clover Shellers, Horse Rakes, Churns of various patterns, Grindstones and Improved Hand gings; Hay, Straw and Manure Forks; Ox Yokes and Bows; Patent Bow Pins, Ox Trace and Log and Cow Chains; Cross-cut and other Saws; Spades, Shovels, Hoes and rakes; Ox Muzzles and Bull Rings; Post Diggers and Crow Bars; Wheel Barrows; Grain Cradles; Scythes and Scythestones; Grubbing Hoes and Picks; Post Augers, Drawing Knives, Axes, Broad Axes and Hatchets; Grain Bags; Grain Measures; Garden Trowels and Weeding Forks; Cast Iron Chairs and Settees; do. Hat and Umbrella Stands; Garden Watering Pots; Hyacinth and Bulb Glasses; Pruning and Budding Knives; Wire Flower Trainers; do. Stands, Bee Hives, Pruning Saws and Chisels; Grass and Grain Sickles; Rose Shears and Twig Cutters; Flower Scissors; Butter Prints, Bowls and Ladles; Folding Ladders, Screw Wrenches, Pincers and Gimblets; Rat and Mole Traps; Cattle Cards and Horse Brushes; Curry Combs; Horse Lancets, Ox Knobs; Nest Eggs; Hoe and Fork Handles; Hay and Corn Knives; Garden Reels; Tree Scrapers; Cow Bells; Family Press; Pie Pie Boxes; Potato Diggers and Pullers; Whiffle Trees; Caterpillar Brushes; Fruit Pickers; Border Knives; Guano; Plaster; Poudrette; Bonedust; Lime, &c.

PASCHALL MORRIS & Co.,

Nursery, Seedsmen and Florists,
West Chester, Pa.

Orders by mail promptly attended to.

SUPER PHOSPHATE OF LIME.

Prepared under the supervision of Professor Mapes, for sale by the ton or smaller quantity, at the Agricultural Warehouse and Seed Store, West Chester, Pa. Also, No. 1, Peruvian Guano.

PASCHALL MORRIS, & Co.

10,000 PEACH TREES.

Also fine Dwarf Pears, well branched, many of them having fruited the present season; also Evergreen and Deciduous Trees and Shrubbery in great variety.

Nurserymen and Dealers supplied with Black Spruce, American Arbor Vita, Balm of Gilead, White Spruce, Hemlock, from 4 to 12 inches in height, at \$30 per 1000, well packed in crates, and delivered in Philadelphia. Also, Sugar Maple, White Ash, Birch, American Larch and Elm, from 18 inches to 4 feet, of handsome shape, and delivered in Philadelphia in good condition a \$10 per 100.

ROCK SALT.

Rock Salt in large lumps, for salting cattle. This article can be placed in the open field, and is not affected by the weather.

PASCHALL MORRIS, & Co.

HAY, STRAW AND FODDER CUTTERS.

Webb's, Hovey's, Emery's, Rice's, Potts', Catchpole's, and other Straw and Fodder Cutters and Crush-

ers; also Hick's Portable Cider Mills, which will make from 5 to 10 barrels per day. For sale by

PASCHALL MORRIS, & Co.,

Agricultural Warehouse and Seed Store,
West Chester, Pa.

FRUIT & ORNAMENTAL TREES & SHRUBBERY.

The subscribers offer for sale the present fall, at their Nursery, Garden & Green-house Establishment, West Chester, Pa., a large and select assortment of the different kinds of FRUIT TREES which they offer by wholesale or retail, at reasonable prices, viz: Apple, Pear, Peach, Plum, and Cherry trees, Apricots, Nectarines, Figs, Filberts, English Walnuts, Strawberries, Raspberries, Gooseberries, Currants in great variety, Quinces, Almonds, hardy and tender Grape Vines. Also a fine collection of Dwarf Pears on Quince adapted for immediate bearing, and embracing some 25 or 30 varieties. Some of them now in fruit.

Also Evergreen and Ornamental Trees and Shrubs, both of native and foreign growth, of all the most desirable kinds for our climate. Norway Firs, Balm of Gilead, Austrian and Scotch Pine, Lebanon and Deodar Cedars, Cryptomeria, Japonica, Chili Pine, Himalayan Spruce, several varieties of Box, Arbor Vita, Hollies, nine varieties of Junipers, English and Irish Yew. Also a large collection of hardy roses and green house plants. Bulbous roots, Tulips and Hyacinths, imported Phloxes, Verbenas, Dahlias, embracing 40 varieties, imported the present season. English double Holly-hocks, very choice chrysanthemums, &c., together with all other articles usually found in similar well conducted establishments.

Orders by mail promptly attended to, and trees and plants carefully packed, and forwarded as directed. Catalogues furnished on application.
PASCHALL MORRIS & Co.
Nursery, Seedsmen & Florists, West Chester, Pa.

FRUIT & ORNAMENTAL TREES.

ELLWANGER & BARRY desire to call the attention of Nurserymen, dealers and planters to the immense stock of Trees now on their grounds embracing Fruit Trees of every description, viz: Standard Apples, Pears, Plums, Cherries, Peaches, &c., on free stocks for Orchards—vigorous and well formed.

Dwarf and Pyramidal Pear Trees, on quince stocks, about 100,000, embracing every fine variety that can be so worked, 2 year old, trees low branched, vigorous and beautiful.

Dwarf and Pyramidal Cherries, on mahaleb stocks, five one, two and three year old trees; well branched and finely formed.

Dwarf Apple trees, on Paradise and doucin stocks, beautiful 2 year old trees with heads for immediate bearing, besides vigorous yearlings.

Gooseberries, large Laneashire sorts, strong plants for immediate bearing.

Currants, including the Cherry, Victoria, White Grape and many other new and fine sorts. See our catalogue.

Raspberries, the new large fruited monthly, Fostol, &c., &c. A complete collection of all desirable varieties.

Grapes, hardy native sorts, such as Isabella, Catawba and Clinton, strong two and three year old varieties of foreign grapes for vineries, strong thrifty plants in pots.

Strawberries of all desirable varieties. Rhubarb, a large stock of the best varieties in cultivation, and all other fruits cultivated.

The entire fruit department is under our own personal supervision. The best quality of stocks is used, and the most scrupulous attention given to ensure accuracy: we flatter ourselves, that no Nursery collection can offer a stronger guarantee to purchasers in this respect. The stock is all grown on new fresh soil, and is healthy, well manured and hardy. We ask purchasers to examine it.

ORNAMENTAL.—Large trees for streets, parks, &c. Such as horse chestnuts, silver maples, snowy abeles, mountain ash, elms and tulip trees, in large quantities, cheap.

RARE ORNAMENTAL LAWN TREES, embracing the most novel, remarkable and beautiful trees, and shrubs, both deciduous, and evergreen that can be grown in our climate, for particulars, we refer to the descriptive catalogue.

ROSES.—One of the richest collections in the country, including the newest and best European varieties, selected by us last summer in person.

Bulbous Roots, imported annually from Holland, can be supplied after 1st Sept.

Dahlias. The new English and French prize varieties of 1851, besides fine older ones.

All articles packed in the best manner and forwarded to any part of the U. S., Canada or California. Orders strictly complied with in every particular. The following catalogues are sent gratis to all who apply and enclose stamps to cover postage which must be prepaid.

No. 1.—A Descriptive Catalogue of Fruits

No. 2.—" " Ornamental Trees, Shrubs &c

No. 3.—A catalogue of Dahlias, Fuchsias, Chrysanthemums and budding plants.

No. 4.—A wholesale catalogue, for Nurserymen and others, who wish to purchase largely.

Postage on Nos. 1 & 2—500 miles or under 3 cts; 500 to 1500 m. 6 cts.

" 3 & 4—500 " " " 2 "

MOUNT HOPE NURSERIES.

Sept. 1, 1852

Rochester, N. Y.

FARMERS! LOOK TO YOUR INTERESTS.

STILL GREATER IMPROVEMENTS IN GRAIN
DRILLS.
PRICE REDUCED TO SIXTY DOLLARS!



MOORE'S PATENT
SEED AND GRAIN PLANTER.

This Machine was Patented July 2, 1850, and has received the highest premium at all the Exhibitions where it has ever been contested: including New Castle County, Delaware, Agricultural Society, October 9th 1850; Philadelphia and Delaware County Agricultural Society, October 17th, 1850; Maryland State Agricultural Society, October 23d, 1850, and October 24th, 1851, and Michigan State Agricultural Society, September 25th, 1851.

THE ABOVE DRILL is not liable to get out of repair, is exceedingly simple in its construction, will sow point rows in all irregular shaped fields, and possesses superior advantages to all others in the ease and quickness with which it can be regulated to sow any desired quantity of Grain per Acre, while the draft upon the horses is twenty-five per cent. lighter, and consequently with the same labor, can seed one-fourth more ground per day than with most other machines now in use. The objection so common to Drilling Machines of becoming CROOKED if the seed is not perfectly cleaned, is entirely obviated in the Simple and Peculiar construction of this Drill, as white

MYERS' CHEMICAL ANIMAL MANURE.

That of offering to the public a Manure which comprises all that could be wished—its cheapness and surprising effects in producing larger crops in any kind of soil—is lasting and enduring qualities.

The subscriber offers this Manure to the public with a full knowledge of its powerful effects upon ground where used. This Manure must take its precedence above all others; its adaption to all kinds of soil, and every particle of fertilizing properties being preserved in the mode of manufacture, render it at once cheaper than any other manure used for all kinds of crops. Its effects are wonderful. A supply always on hand.

WM. MYERS,
Seventh Street near Germantown Road, Kensington, Phila.

READ THE FOLLOWING CERTIFICATES

GERMANTOWN, October 3, 1851.

To Mr. Wm. Myers—Sir—Having tried your Chemico-Animal Manure upon potato ground, this season, I find it produce one-third more and larger potatoes than the best horse manure on the same ground.

WM. K. COX.

The following additional certificate just received, speaks for itself.

WOODBURY, N. J., 10th mo 20th, 1851.

I have used upward of 1000 bushels of Wm. Myers' ANIMAL MANURE, on corn, potatoes, turnips, melons, and some other crops during the present season, and am satisfied that it is an economical and powerful manure, for turnips, radishes, and other root crops—my experience has shown it to be especially valuable.

DAVID J. GRISCOM.

SPRING FIELD FARM, Cecil County, Md.

Mr. Wm. Myers—Dear Sir—I manured with your Chemico-Animal

caps and short straw will not interfere in the least with the regular distribution of the seed. It is warranted to distribute the seed evenly; to sow and quantity per acre commonly sown broadcast; to not cut or break the grains; to be well made with good materials and durable with proper care.

Having sold about 400 of the above Drills the past season, all of which met with the unqualified approbation of the purchasers; and after careful and thorough experiments, which have resulted in Still Greater Improvements, we now feel warranted in saying that Moore's Patent Seed and Grain Planter improved, is superior to any other machine for the purpose, now in the market.

Having made arrangements to furnish 1000 of the above Machines for sale the coming Season, we shall be prepared, at all times, to supply orders without delay.

All orders addressed to the undersigned will warrant prompt attention.

LEE, PEIRCE & LEE.

August, 1852.] *Ercildoun P. O., Chester Co., Pa.*

man Manure about 35 acres of the poorest land on my farm, and put half in Oats, and the balance in Corn. Although it was got in quite late, and the Season very unfavorable for the Corn crop generally, yet notwithstanding, I can say that it is decidedly the best Corn I ever raised, although I have farmed for 20 years, and have had good Corn land, and Manured well, as I thought, in the old way. While my neighbors' Corn was quite yellow and leaves curled up with the drought, mine was green and growing rapidly; therefore, I consider it one of the most valuable manures I ever used, and shall take pleasure in recommending it to my neighbors and others.

Yours respectfully,

E. M. SEELY.

SIDLE'S HUB, AUGUR AND BOX REGULATOR.

THE subscriber residing in Dillsburg, York county, Pennsylvania, has invented a new and improved Augur for the boring of hubs, and setting the boxes of wagon, carriage and other vehicle wheels for which I have obtained letters patent.

The Augur will bore both ends of the hub at the same time, or either separately—and is the most useful and important invention of the age for inserting wagon boxes and the only Machine in existence by which they can be inserted exactly true—and is so perfectly simple in its construction, and constructed on such just mechanical principles, that it cannot possibly get out of repair.

With this Augur a set of boxes can be inserted in a few minutes—where under the old system it requires hours to perform the same amount of work.

Persons wishing to purchase Territory or Shop rights will please address the subscriber, who will sell on terms that will enable purchaser to make money.

Dillsburg, April, 1852—4f

HENRY SIDLE.



VOL. 2. WEST CHESTER, PA., JANUARY, 1853. NO. 10.

THE FARM JOURNAL.

J. L. DARLINGTON, EDITOR.

A. M. SPANGLER, ASSISTANT EDITOR.

AGENTS.

THE FARM JOURNAL may be had at the following places:—

W. B. ZIEBER, South 3d, St., principal Agent for Philadelphia.

W. H. SPANGLER, - - Lancaster, Pa.

B. F. SPANGLER, - - - Columbia, Pa.

GEO. BERGNER, - - - Harrisburg, Pa.

H. MINER, - - - - - Pittsburg, Pa.

J. R. SHRYOCK, - - - Chambersburg, Pa.

H. M. RAWLINS, - - - Carlisle, Pa.

A. L. WARFIELD, - - - York, Pa.

WM. DOMER, of Altoona, Blair County, is our authorized agent for Blair and Centre counties.

A. E. BRADY, Cumberland and Perry counties.

JOS. PRESTON, Kennett Square, for Chester and Delaware counties.

JONATHAN DORWART, Lancaster county.

SAMUEL H. WOOD, of Norristown, for Montgomery and Bucks counties.

And of Booksellers generally.

Fruit Culture in Pennsylvania.

It is said to be a trait more peculiar to Farmers as a class than others, to be generally indisposed to vary from the beaten track of their profession, and slow to adopt innovations varying from their accustomed routine. While it will be admitted that this hesitation has often saved from trifling loss, it will be found still oftener to have delayed great pecuniary advantage. What, with the merchant may often be called a hazardous speculation, involving the loss of fortune, with the farmer who introduces a new implement, or some unusual rotation of crops, the disappointment from the experiment, if there is any, occasions but trifling inconvenience, and often no loss whatever. The channels and pursuits of business are continually changing. New markets and means of communication are opening. Commodities unthought of some few years since, now constitute active and im-

portant articles of commerce. The rapid extension of Railroads and the Telegraph, the great increase of steam power both on land and water, the continued and unprecedented increase of population, particularly in our large cities, has given an impulse to business, and occasioned a change in the relative sources of supply and demand as regards agricultural productions, which it will be well for the farmer to consider and adapt his business to the new state of things. In a very short time there will be a continuous Railway communication between Philadelphia and St. Louis, through the heart of our Commonwealth. Already, fat cattle, who used to travel from Indiana and Ohio, to the Atlantic cities, at great expense, and loss of time, and loss of weight, are brought down in cars built for the purpose, and can be rushed in, by a telegraphic communication, advising of a rise in the market, at a few hours notice. Recently thirty-five car loads of live hogs arrived in Philadelphia from the West. It strikes us that the natural course of things, very soon, when our main lines are completed, and intersected as they will be by laterals in all directions, will be to create a competition in the heavy articles of farm produce, such as beef, pork, grain, flour, &c., unfavorable to the farmer near the Atlantic coast where land is from \$50 to \$150 per acre, and that our farmers, particularly in Eastern Pennsylvania, should avail themselves of their proximity to Philadelphia, now with a population of half a million, and devote more attention than hitherto to certain perishable articles, which do not so well bear long carriage, such as fruits, vegetables, dairy products, butter, milk, Poultry, &c. We believe these to be far more profitable now, than fattening cattle or raising grain. We wish to speak, however, at present, particularly of Fruit culture, as we believe there is no product of the soil, in which the supply is so far short of the demand at this time and for some years past, and which will so well repay, for interest on cost of land, labor and expense of marketing, as the cultivation of choice Fruit. We speak of all kinds of Fruits, apples, pears, peaches, plums, quinces, cher-

ries, raspberries, strawberries, blackberries, gooseberries, &c. Not that we recommend every farmer to go into the cultivation of all these, but only that they will all pay a handsome profit, and that each one must judge for himself, from his soil, location and facilities of access to market, which or how many of them it will be most profitable to cultivate. They will always sell in Philadelphia, and in many of our inland towns, there is a better market, the supply being poorer and the prices higher than in the city.—We speak now of cultivating fruit as a regular branch of business, giving it the same attention as corn or potatoes, selecting the best varieties of each, and pursuing it properly and scientifically, from the planting of the tree, the care of it, which involves judicious pruning, manuring and cultivating of the soil, to the final preserving, gathering and marketing the crops. It is customary now to see the orchard, and fruit garden consisting together of one-quarter or one-half an acre, the most neglected part of the farm. Apples are apples, and a tree from a nursery crammed into a small hole, and often planted in a tough sod, and allowed to take its chance, if it has escaped being broken down by the cattle, at the end of ten or twelve years is at last visited by the owner, and if he finds no fruit, or perhaps some knotty, knurly specimen, calculated to set one's teeth on edge to look at,—Fruit culture is pronounced at once unprofitable, and that there is nothing like the good old rotation of corn, oats and wheat. While hundreds of acres have been, and are being planted out in New York and the Eastern States, and many thousands of barrels of apples have been shipped the present fall to Europe, the systematic cultivation of fine fruit as a material item in the business of the farm, may be said hardly to have commenced in Pennsylvania.—We believe our soil and climate as favorable for it as elsewhere; our different Horticultural Exhibitions prove this and show what can be done. To be profitable however, it must be attended to properly, not only the varieties to be of the best, but the specimens as large and fine as can be produced. The price of Pennock and Grindstone apples, the Hedge and Bell and Choke pears, and hard Cling peaches, must not be considered evidence of the profits of fruit culture. We have seen this season in Philadelphia, Duchesse d'Angouleme and Bartlett pears selling from 18 to 25 cents each, Beurré Diels 12½ cts., fine Seckles 3 cts., while inferior varieties were dull at 75 cts. to \$1 00 per bushel, and the same relative prices will hold good with apples and all other fruit. We have never known the time when really fine fruit would not sell well, and believe that more can be realized from a few acres occupied in this way—in many instances—than from the whole produce of a farm, with any ordinary rotation of crops. There is no danger of the eating of luscious fruit going out of fashion. Not only is our domestic consumption very great and con-

tinually increasing, but there is also increasing rapidly a large demand for export, and the coast trade. Hundreds of barrels of apples have been shipped this last fall from Philadelphia, for Charleston and Savannah in the steamers, now plying regularly, and our exchanges inform us that over 6000 barrels went to Europe in three of the steamers from New York, and which brought, (the best quality) from \$5 to \$9 per barrel, the freight charged being only \$1 20 each. Baldwin apples and White Doyenne pears have been shipped to the East Indies, and arrived in fine condition; and also apples, peaches, and even strawberries to the West Indies. The introduction of steam on the ocean, and the ice house, have removed the obstacles to transporting fruits safely to foreign countries. In respect to choice pears, it seems useless to speculate about a foreign demand, when we are not half supplied at home, and will not be for years; but there is no doubt that their exportation, particularly to England, will become an item of great profit and importance. The English climate is unfavorable to many kinds of fruit; apples, pears, and peaches, especially, being too moist to develop and mature those saccharine juices, on which its excellence so much depends. The regular quotation of pears in Covent Garden market, London, is for pears \$1 to \$3 per dozen. Peaches 6 to 8 cents each.—Fruit culture, like any other business, requires to be successful, judgment, intelligence, and energy in its management. Not only must the best varieties be selected and properly cultivated, but a supply in season and out of season must be furnished for the market, and for this a properly constructed and well-ventilated fruit room or cellar is absolutely necessary. The merchant does not force his goods to sale on a dull and falling market; but with wise foresight anticipates the season of comparative scarcity, and realizes a four-fold profit. So it must be with the cultivator of Fruit. Apples a few weeks ago were selling for \$1 25 per barrel, now they will bring that much per bushel. Winter Nelis, Glout Morceau, Beurré d'Alremberg pears will sell now at almost any price.

With the view of showing what has been done elsewhere, and to give some idea of what may be done in Pennsylvania, we have collated below a few statistics of Fruit culture. One small township in Massachusetts, has raised, the present season, 14,000 barrels of apples, which sold at an average of \$2 per barrel. An apple orchard, chiefly of the Rhode Island Greening, of one acre, in Wayne county, New York, produced, in 1847, 200 barrels of selected Fruit. Another one in the same county of 3½ acres, 650 barrels. Robert L. Pell, of Ulster county, New York, has raised from 4 to 6000 barrels of Newtown Pippin apples in one season, which have brought, in New York, \$1 per barrel, and in London, from \$10 to \$12. Dr. H. derhill of New York, has a vineyard on the Hudson of 20 acres, and sends some thousands of baskets

be taken by our State Society at its approaching meeting. Something of the kind seems required grapes to New York, and which bring from \$6 to \$9 per 100 lbs. He thinks there is room for 20 vineyards in the same locality as his own. The yearly consumption of grapes in Paris is said to be ten millions of pounds. C. A. Cable, of Cleveland, has an orchard of 100 cherry trees, which has yielded in one year, over \$1000. A farmer near Darby, Pa., has 20 apple trees of two varieties, occupying half an acre, which have produced 300 bushels, and yielded a profit \$225. R. J. Hand, of Monroe county, New York, has sold \$440 of Northern Spy, and Roxbury Russet, from a single acre. A single orchard in Rockingham county, New Hampshire, of two acres, produces annually, 800 bushels of first-rate winter apples. In Orange county, N. Y., over \$300 worth of plums have been sold from one-quarter of an acre. The Reynolds, of Delaware, have nearly 1000 acres in peach trees, and have sent 5000 baskets in a single day to market, and have realized in one year, \$20 to \$30,000 clear of expenses. An acre of ground in strawberries, with proper culture, can be made to yield 100 bushels. A friend of ours in New Jersey, has marketed in Philadelphia the present season, over 200 bushels, at 12½ to 25 cts. per quart. The Patent Office report states that in 1848, in 17 days, 4,572 bushels of strawberries were sold in New York, 514 bushels in a single day. Over 80,000 baskets, equal to 833 bushels, and weighing probably 25 tons, were brought to the city in one day by the Erie Railroad. Of raspberries, Charles Downing, nurseryman, near Newburg, N. Y., states that one of his neighbors sold \$300 worth from one-third of an acre, one season, and from 3 acres realized a net profit of \$1,500. They were of the true Red Antwerp. The culture of Gooseberries is also very profitable, and we have heard, the present season, of nearly \$300 worth being sold from little over half an acre. As regards pear culture, the field is almost wholly unoccupied, and since the introduction of the Pear on Quince; obviating to a great extent the liability to blight, occupying but little ground, and making quick returns, we believe it to be as much, if not more profitable than the others. One of our friends in N. Jersey informs us he planted out 3 years ago, 300 dwarf pear trees, which averaged him this season one peck each, and at ten feet apart, they occupy less than one acre of ground. We do not know what the wholesale price was, but we know they were retailed at second hand from 12½ to 25 cts. each; less than half of this would realize \$600 to the acre, and of course the product will annually increase. Many persons are deterred from the Fruit business, by the length of time before the trees come into profit. This depends entirely on the attention they receive. Apple trees may be ten or twelve years before fruiting, or they may be made to produce a bushel each in five years from the planting. Dwarf pears often bear the first year they are

put out, thus making almost immediate returns. We have known of a dwarf pear tree in Philadelphia the present season to have produced five to six bushels. The cultivation of the ground between the trees where orchards are planted, and the planting of the smaller fruits, root crops, &c., will often not only repay all expenses, interest on land, &c., till the larger trees come into bearing, such as Apples, Pears, Plums and Cherries, but will in many localities, cover the cost of the land also. A full grown apple tree will yield from ten to forty bushels. Four hundred bushels may be considered a reasonable estimate for an acre. We close this article, which is much longer than we intended, by advising all disposed to go into the fruit business, to procure one of Downing's, Thomas', or Barry's Fruit Books, for directions as to selection of varieties, planting, pruning and general management.

Agricultural College and a Model Farm.

We learn from the American Farmer, that the requisite funds, \$50,000, have been raised to establish an Agricultural Department in connection with Delaware College, Delaware, and that efforts are now making "to secure the services of one of the best Agricultural Chemists in the country," as one of the Professors. It is also contemplated to establish in connection with the same, a model and experimental farm.

The State Agricultural Society of Maryland at its late fair, have also advocated "that a memorial be addressed to their Legislature for the endowment of a Professorship of Agricultural Chemistry, to be connected with St. John's College, Annapolis."—The public spirited men of these two states, without reference to party politics, appear to be unanimous and earnest on this subject. It seems already secured in Delaware, and there is every probability that Maryland and other states will soon follow. Is Pennsylvania going to be behindhand? Are our farmers so far ahead of those north and south of them, that no instruction is needed? Is the theory and practice of agriculture in Pennsylvania already perfect, and are the great fundamental principles, which lie at the root of all good farming, everywhere and in all countries, better understood here than in our sister states? Does our land produce its greatest capability, with the least labor, expense and impoverishment? Are our agricultural machinery and implements more perfect than elsewhere? Is our live stock throughout the state, cattle, horses, sheep and swine, poultry, of the best and most improved breeds? Unless these questions can all be answered affirmatively, we also need a model and experimental farm, and an Agricultural Professorship; and it is to be hoped that some decided action on the subject may

by the times, and the example around us. It would result in a vast amount of good, to the substantial interests of the state, augmenting aggregate and individual wealth, and we cannot think the necessary legislation would be refused, if the subject were well understood, and a suitable report prepared in the Legislature. As it would be for the purpose of putting money into the pockets of the people, not to take it out, the action of their representative would be sustained without doubt at home. Attached to a model and experimental farm of the kind we allude to, there should be an Agricultural Chemist, competent to analyze soils, for the benefit of the farmers of the whole state, who might also at certain seasons, visit the different county associations, and deliver lectures on scientific and practical Agriculture, on Geology, Mineralogy and Botany, so far as they are connected with the same, and who should be required to collect agricultural statistics and make annual reports, as to the modes of culture pursued in various sections. The model farm should be the repository for the reception and cultivation of new and foreign plants, seeds, vegetables, &c. New implements should be tested there and reported upon. Experiments in the culture of various crops should be accurately made, and their adaptation to our soil, climate and relative profit for particular localities, made public for the general benefit. Careful experiments should be made with the various improved breeds of animals, the best and most profitable reared, and placed within the reach of purchasers, who could visit the farm, and obtain reliable information as to their respective merits. This would be a very valuable feature of it. The model farm should also contain an arboretum of our own and foreign plants, trees and shrubs, open at all times to the public, and scientifically arranged, and also should have an experimental ground for testing the different kinds of fruit, and their adaptation to our soil and climate. The experimental garden of the Horticultural Society of London, contains 900 varieties of fruits, and upwards of 1500 have been tested there.

Without consultation with any one, it strikes us, these are some of the benefits to be attained by legislative action on the subject of agriculture and the establishment of a model farm, and we much hope the present session of our legislature will not close, without the initiatory steps being taken to bring it about.

POULTRY AND EGGS.—Fowls like the warm southern aspect, where they can huddle together in the sun during the middle of the day. Provide them such a place, and plenty of food, such as corn, barley, wheat, cobmeal, mixed with scalding water or hot potatoes, with occasional feeds of the flesh of young calves, plucks of sheep, and constant access to pure water, gravel, old mortar, oyster or clam shells and bones, all broken finely, and they will yield eggs in abundance through the cold weather.—*N. E. Farmer.*

Statistics of Stock in the United States.

The following is from the Journal of the United States Agricultural Society, and it contains much of interest.

HORSES.—If it should be necessary to place every farmer in the Union on horseback, there are 4,325,652 horses in the country, for their service. Ohio has the honor of rearing and keeping more horses than any other state; the whole number reported being 463,398. New York had 447,014, Pennsylvania 330,398, and Kentucky 315,581.

The improvement of four and a half million horses, worth at least \$200,000,000, is an object worthy of more attention than it has hitherto received. State and County Agricultural Societies have done something, and the high price of good animals more, to encourage the breeding and rearing of superior roadsters, and good horses of all work. But the years of service rendered by a majority of them are fewer than they ought to be in this country. To prolong their lives, and increase their value, their natural wants, constitution and diseases must be more studied, and better understood by those that own and use them. We ought to excel all other nations in the number of fine horses, for we possess unequalled advantages for producing them to any desirable extent.

ASSES AND MULES.—Of these useful animals the census gives only 529,070 in all the States and Territories. New Mexico had 8,654, and only 5,079 horses. Tennessee is the largest producer of mules, reporting 75,903; Kentucky had 65,609; Alabama 58,895, and Georgia 57,379.

The growing of mules is profitable, and the business has been considerably extended within the last two years.

MILCH COWS.—The number of cows exceeds the estimate that we have had occasion to make of this kind of farm stock, in all the states except New York, where the returns are below what we expected from the number given by the State census of 1845. The whole number of cows in the United States two years ago, was 6,991,946. Of these New York had 931,324; Ohio, 544,499; Pennsylvania, 530,224, and Georgia, 334,223.

Cows differ more in value for milking purposes than is generally supposed. Thousands fail to pay their way, and are a positive tax on their owners; while a first rate milker yields a large profit on the food consumed. How to banish all indifferent and worthless kinds, and fill their places with superior animals is a question for the intelligent growers of neat stock to consider. Deterioration is practiced by a hundred farmers where improvement is duly studied by one. As a general thing, cows and their offspring must be better kept before any decided change for the better is attainable. High quality in ancestral blood available in the veins of a starved calf. Without good keeping the breeds of stocks are utterly worthless.

WORKING OXEN AND OTHER CATTLE.—We are not informed to what age young steers must attain before they are entitled to rank as "working oxen;" or whether, in case they have never been subjected to the yoke, they are excluded, no matter what their years, from the catalogue of "working cattle." We suspect that entire uniformity in reporting "working oxen" and "other cattle," has not been observed in all the states. Be that as it may, the latter number 10,265,180; while the former are set down at 1,008,261. By adding together the milch cows, working oxen and other cattle, it will be seen that the aggregate of neat stock was 18,355,387 head. New York

contains nearly three times as many oxen as Ohio or Pennsylvania. New York has 178,909; Ohio, 65,381; Pennsylvania, 61,527; Missouri, 111,268, which places the latter next to New York in this kind of stock.

SWINE.—It is pretty evident that many American farmers think more of hogs than of sheep, for their hogs outnumber their sheep by nearly ten millions. This is a singular fact, and in the judgment of many, indicates a badly cultivated state which so greatly prefers the flesh of swine to that of sheep, to say nothing of the superiority of wool to hair. Over thirty million hogs, (30,315,719) are a sufficient stock to render pork and bacon making as it really is, a very important branch of American husbandry. Tennessee takes the lead in this department, keeping nearly four times more swine than sheep. Of the latter, the census gives her only 811,591; but of hogs she claims 3,114,111. Kentucky has 2,851,163. Indiana is ahead of Ohio in the pig line, having 2,268,776; while Ohio is content with 1,964,770.

VALUE OF LIVE STOCK.—The value of live stock in the United States is returned at \$543,822,711. Of this large sum, New York claims \$73,570,499; Ohio, \$44,111,741, and Pennsylvania, \$41,500,053. If we add the value of live stock, farm implements and machinery, to that of farms, the whole investment is found to be \$3,962,353,395. If to this be added the usual increase of two years, and the estimated value of the slaves engaged in agriculture, the whole amounts to five billions, or five thousand millions of dollars.

New York Milk Trade.

The number of farmers engaged in the milk business, according to the New York Evening Post, to which the following facts are due, is little over 300, and the number of cows possessed by them a little over nine hundred. These, at fifteen dollars each, will come to \$135,000, and the land necessary for their support, of three acres to an animal, will amount to twenty-seven thousand acres. The value of horses engaged in the distribution of the milk, is forty-five thousand dollars; the horses connected with the transportation of country milk alone, travel daily twice as far as from New York to Liverpool. There are three hundred wagons worth a hundred dollars each. Ten thousand cans are used, valued at \$35,000. The loss for wear and tear of these is great, and estimated at about five per cent. on the profit of sales.

Two hundred and fifty companies and single dealers are estimated to receive milk from the country, sell from 200 to 6000 quarts daily. Many hotel restaurants and boarding houses make contracts with the farmers, and get their milk from them directly at three and four cents a quart. The sum paid for pure milk last year in New York, was over one million eight hundred thousand dollars; about one-fourth of which was paid for the water with which it was diluted. The amount of the milk and water was about thirty-one millions and a-half quarts, and about one hundred and forty-six thousand dollars were paid for transporting it.

What has been spoken of comprises about one-third of the article consumed, and is called pure country milk; the other two-thirds are composed of the produce and swill of the grain stables of New York and the vicinity. The number of cows thus fed is fifteen thousand. Their value is less by twenty-five per cent. than country cows; but after being dry and fattened, if not enfeebled by the disease so

incident to such cattle, they will bring nearly as much it is said, as grass-fed cattle, and are probably served up at tables with no suspicion of their history. The cows fed on grain and swill are estimated to be worth one hundred and fifty thousand dollars; and, though proportionally less in value, yield a profit about two-thirds greater than that realized on the sale of the pure country article. The swill milk is adulterated about one-fourth more than the country milk. The number of quarts daily produced by these establishments, which undergo a remarkable increase in the hands of the hucksters, may be estimated at one hundred and eighty thousand quarts daily. This is three millions seven hundred thousand yearly; which, at four and a-half cents, amounts to nearly three millions of dollars.

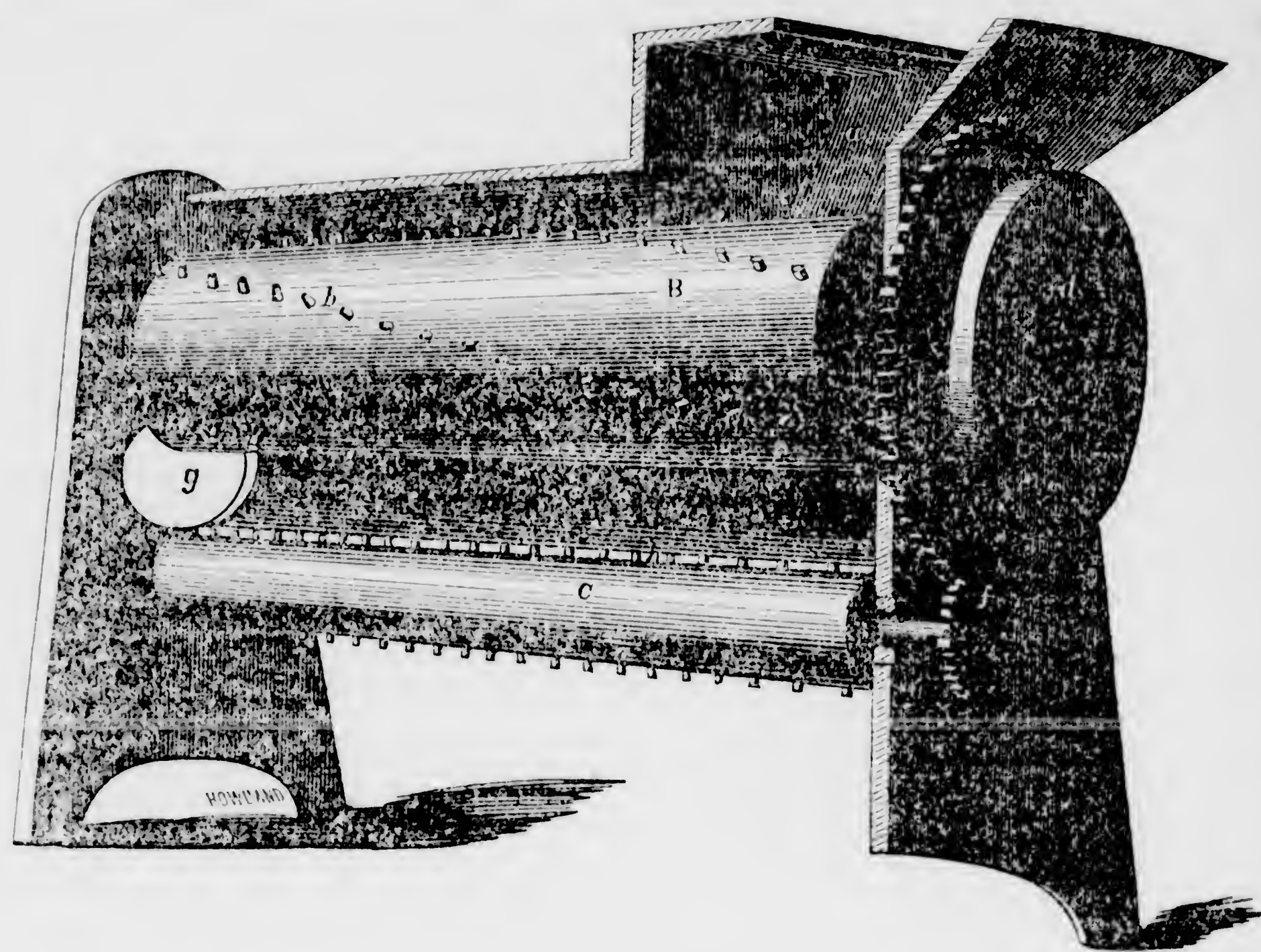
The number of persons one way or another engaged in the distribution of this milk in New York, Williamsburg and Jersey City, may be set down at twelve hundred, at weekly wages of about six dollars each. Horses connected with it are about eight hundred, worth eighty thousand dollars; and wagons, cans, &c., one hundred thousand dollars more. The total value of carts, horses, cans, other utensils and cows in city and country, concerned in the product and distribution of both kinds of milk is estimated at nearly six hundred thousand dollars. The total annual receipts from its sale may be reckoned at six millions, as follows:

Pure country milk, - - - - -	\$1,350,000
Pure swill milk, - - - - -	2,550,000
Water, chalk, magnesia, molasses, &c., - - - - -	1,250,000
	<hr/>
	\$6,050,000

The last item shows an immense sum paid for water, though it is commonly celebrated as the free gift of heaven. If to this be added what is paid for ice, and by the inhabitants of New York for the Croton, it will be found that few articles are more expensive than water, covering though it does three-fourths of the surface of the earth. In its simple state, the largest amount of milk is consumed by infants and children; and when its deleterious nature is considered, their extraordinary mortality can excite no wonder. But the great proportion of the milk sold is probably used in cookery and the manufacture of confections; of which there is an immense consumption, especially in the summer. One of the largest saloons in New York is reputed to have converted five hundred quarts into ice cream in a single day last summer.

On the whole, the million and a quarter annually paid for the water, molasses, chalk and magnesia mingled in this drug, for so it then becomes, is probably laid out at a better bargain than the two millions and a half for the product of the swill.

AN INTELLIGENT HORSE.—Some years ago, the citizens of Centerville, Indiana, were often amused by the conduct of a horse, when, with others, he was turned into the barn-yard to be watered. One day, approaching the trough, and finding it empty, he seized the pump handle, to the surprise of the witnesses, between his teeth, and pumped water sufficient for himself and the other horses. Having thus begun, he was allowed, when so inclined, to wait upon himself and companions afterwards. But it was observed that he always drove the other horses away until he had quenched his own thirst, after which he pumped for the rest.



CORN SHELLER.

The accompanying engraving represents a Corn Sheller invented by William Reading, of Flemington, N. Y., and for which he obtained a patent 13th of July last. The above is a sectional view lengthwise. *b* is a toothed cylinder 7½ inches in diameter and about 4 feet long, and is placed in the centre of an iron cylindrical casing *a*, 15 inches in diameter and 4 feet long. This cylinder and casing are supported in a frame in a horizontal position. There is a space of some 3½ inches every where between the outer surface of the shelling cylinder and the inner surface of the casing which makes room for the free action of a mass of corn while it is operated upon by the cylinder. The corn is admitted into the machine through a good sized hopper *a*, placed at the end over the driving pulley *d*, where there is a piece cut out to admit it. An aperture is left at the opposite end, at the rising side of the shelling cylinder, through which the cobs are discharged, the size of which opening should be varied according to the condition of the corn to be shelled. This is readily done by a piece of sheet iron, or stiff leather, being fastened by one end to the machine, and allowing the other end to be turned, more or less, over the aperture as the case may require. The proper rate of speed for the cylinder is seven or eight hundred revolutions per minute, much less speed will not answer, and too much will break the grain; there are four rows of teeth *d*, standing three-eighths of an inch out from the surface of the cylinder *b*, and set 1½ inches apart in the row, each row winding one-fourth the way round it, which carries the cobs out of the sheller. An opening is left in the bottom of the casing from end to end, in which is placed a small toothed cylinder *c*, upon

which the corn falls and is carried out of the casing through a small space upon each side of it, sufficiently large to allow shelled corn to pass, but to prevent the cobs; it is turned slowly, by the gearing *e* and *f*. This cylinder may be dispensed with, and slots (cut in the bottom of the case half an inch wide and 4 inches apart, running one-fourth the way round the case) may be substituted, which will discharge the corn.

The principle of this Corn Sheller consists, in operating upon a large mass of corn at the same time, with the whole surface of the shelling cylinder; and keeping the largest portion of this mass along the ascending side of the cylinder, which forms an elastic, self-adjusting bed for the cylinder to operate against, and using no rest of any kind, (other than that found by the ears and cobs,) and as the space between the cylinder and casing is large, it gives free play for the ears of corn to be properly adjusted by it, making the action free from any stationary obstruction to the ears; and their own gravity the principal resistance to its action; consequently it will wear much longer and run lighter than any other corn sheller in use, considering the rapidity with which it performs its work.

This machine is capable of shelling 80 bushels of corn per hour with one horse power. The ears of corn are thrown promiscuously into the hopper *a* with scoop shovels or baskets, and it effectually shells them without regard to their size, and discharges the cobs separate from the shelled corn without breaking cobs or corn.

This machine may be obtained at the Agricultural Warehouse, West Chester. See advertisement

Fall and Winter Management of Bees.

Your weak swarms that have not honey enough to pass the Winter, must be fed, or joined with other families. Feed them in any manner you please to effect the end desired. If your families are all rather short of honey, you had better feed all at once. This is effected by a trough, or box made tight, say 18 inches long, by 6 wide, and 4 deep. The honey or syrup of sugar, is poured into this trough, and covered with a float, or light board filled with small holes, or sawed through from end to end as many times as can be, with the interstices cut out on a bevel with a knife, to admit the honey to pass up. West India honey is the only article to feed, unless you use brown sugar. This honey is worth 75 cents per gallon, and weighs about 12 pounds to the gallon. It is kept in all large towns. Half honey and half sugar make a good feed. Any cheap dry sugar will do. Put your honey and sugar into a pot, or kettle, with a quart of water to about seven pounds of sugar, and heat to a boiling point, skim, and it is ready for use. Do the same if the sugar is used without honey.

If you cannot get honey easily, you should feed lightly on sugar alone, as the water is likely to evaporate in the cells, after a while, and the sugar to harden in them, consequently feeding syrup of sugar in the spring is much more desirable than in the fall.

If you have large sheets of empty combs, you can feed very well by warming your feed, and turning it from a pitcher upon the comb till the cells are filled.

When honey is fed alone, or with sugar, there is danger of setting all your bees to robbing; hence, before you feed, you must contract the entrances to your hive so as two or three bees can pass at a time; and if the families are weak, so that but one can pass. You should contract the entrances, however, in September, whether you feed or not, to prevent robbing, but not too close.

As feeding should generally be done in October, those who have not done it should lose no time. Take the first warm, pleasant days, and feed as much as you can, in the shortest time, so as not to disturb the bees any longer than is necessary. You can feed them from the chambers, or under particular hives if you please, and leave such as have honey enough unfed. Feeding under the bees is done by raising the hive upon a box to fit its size. Then place the feed on the stand, within the box, it being open at top and bottom.

Joining two weak families is a good plan, when one hive has honey enough to winter on. The addition of another family will not reduce its stores one jot, strange, as it may appear, as bees consume less than half the feed when in large numbers than they do in small numbers, having to consume more food to keep up vitality.

The manner of joining is as follows:—About the first of December, or as soon as it is obvious that the bees will not leave their hives much, take the most numerous family and place it over the weaker one at evening, the latter being turned bottom up. Then by rapping the lower hive with a rod the bees will ascend and join those in the upper hive, and if they refuse to leave rapidly, a little smoke applied below to pass through them, will give them a start.

Dry cellars will answer to winter bees in, and any dark, airy upper room, but an outer box to cover over a hive, with the passage cut to correspond with the passage in the hive proper, is the best protection we know of. Or you may take hay or straw and surround your hives so that the bees may be well ventila-

ted, leaving their entrances open and the hives raised a little from the floor boards, then darken the passages with anything before them, so that the light shall not enter and attract the bees but in mild, sunny weather, and you can winter your bees in perfect safety.—*Rural New Yorker.*

Princess Alice Maud Strawberry.

We extract below from the reports of the American Pomological Society, some account of this Strawberry, which would appear to be well worthy of attention. From some cause the merits of this fruit, have we think been overlooked. In Downing's and Thomas' Fruit Books, we cannot find it mentioned, and in Barry, "that it is a very large and handsome English variety, very productive, but of indifferent flavor." We have fruited it for two or three years, and find it of very large size, and the flavor very good. The flesh is rather firm, and it has always seemed to us, one of our very desirable kinds, for general cultivation, and have not been able to understand, why it is not more known. An enthusiastic Strawberry grower in Delaware, appreciates it as we do, and has had the like success. It is probable that as with the "Black Prince," soil and climate affect its quality. It ripens in Virginia eight days before Hovey's seedling. We think it much before this latter in respect to flavor, and hope it may have further trial.

NURSERY AT LINNEAN HILL, near Washington, }
August 31st, 1852. }

MR. JOHN SEATER,—At a Meeting of the Committee of the Pomological Congress held yesterday, I was directed by them to request of you any facts with regard to your Alice Maud Strawberry, that it may be convenient for you to furnish. You will please to mention the time it was imported, and where from—your general success in cultivation—how many days in advance of Hovey's Seedling it is generally, in the same soil and exposure—what is the difference in size of your best specimens of each—how many berries to the quart from your best crops—what has been the best yield to any given quantity of ground—how have your plants stood the climate—how affected by the hot sun of summer and the severe frost of winter? To this you will add your method of cultivation.

Yours, truly,
JOSHUA PIERCE.

MR. JOSHUA PIERCE:—

Dear sir,—Your note was duly received. In answer to your inquiries concerning my Alice Maud Strawberry—first, you wished me to mention its faults. I answer, none to my knowledge. 2d. When imported, and who from? Mr. William Barrat, of Wakefield, Yorkshire, England, in the fall of '45 and spring of '46. 3d. How many days it ripens earlier than Hovey's Seedling, on the same soil and exposure? On an average of eight days. 4th. My success in cultivation? I have missed no crop since I commenced cultivating it; I believe it to be a surer crop than any variety I am acquainted with. 5th. The difference in size? I cannot say I am satisfied; for size and quantity Alice will beat Hovey's Seedling or any other variety I have seen, two to one. Note, I do not say but that a few fruit might be picked out of Hovey's Seedling as large as Alice Maud; I speak of the crop in general. 6th. Given quantity? I do not

know that my crop was more superior the past season than formerly; from a piece of ground measuring 60 feet by 135, we picked, on May 26th, about 25 quarts; on the 28th, 150 quarts; May 31st, 400 quarts; June 2d, 250 quarts; June 4th, about 200; June 6th, about the same quantity; at this time we suffered with drought which I should think cut the crop one-fourth short to what might have been expected. From beginning to end we picked fruit from the same ground for three weeks; from 30 to 40 qts. was the last picking. 7th. How it stands the climate? I have never seen Alice injured in the least by winter frosts, and I know of no strawberry that stands the heat and drought as well. 8th. Mode of cultivation? When convenient, prefer spring planting. I plant my plants from 8 to 12 inches in the rows, and 24 inches between the rows. I often plant between crops of early cabbage. I hoe through them the following summer, keep them clear of weeds, and crop off the runners as fast as they make; the following spring I throw in some kind of trash to keep the fruit from the ground. Tanners' bark is the most convenient thing that I can procure; it appears to answer the purpose very well.

Yours, with respect,
JOHN SLATER.

A Table
Showing the number of trees required to plant an acre of land, from ten to fifty feet apart:

Feet.		Trees.	Feet.		Trees.
10	EACH WAY.	435	31	EACH WAY.	45
11	" "	360	32	" "	43
12	" "	302	33	" "	40
13	" "	257	34	" "	37
14	" "	222	35	" "	35
15	" "	193	36	" "	32
16	" "	170	37	" "	31
17	" "	150	38	" "	30
18	" "	134	39	" "	28
19	" "	120	40	" "	27
20	" "	108	41	" "	26
21	" "	98	42	" "	24
22	" "	90	43	" "	23
23	" "	82	44	" "	22
24	" "	75	45	" "	21
25	" "	69	46	" "	20
26	" "	64	47	" "	19
27	" "	59	48	" "	18
28	" "	55	49	" "	18
29	" "	51	50	" "	17
30	" "	48			



French Merino Sheep.

The importance of improving our flocks, ought to attract the attention of every man in America who understands the meaning of the word improvement. Those who do not understand its meaning, will still continue to shear those little scrubby animals called sheep, with bare bellies and hairy backs, getting fleeces weighing at most, not over two and a-half lbs. on an average, and of a quality almost as worthless as that which a certain notorious character obtained at the shearing which gave a great cry but little wool. To those who delight in reading what improvement has done, we commend the following letter:

"Believing the subject of wool growing worthy of

some attention, I take the liberty to send you a wood cut engraved from a daguerrotype view of a group of French Merino Sheep, lately imported by William Chamberlain of your city, and myself.

The buck *Matchless* represented, is three years old, and weighed on the first of March last, 261 pounds. His fleece, sheared last June, of one year's growth, (after suffering the usual loss on the sea voyage,) was twenty pounds twelve ounces. This buck I consider equal to any that I saw while in France; and as to thickness and fineness of fleece, shape and constitution, he is acknowledged, by all who have examined him, to be equal to any of the breed.

The ewes here represented, weigh in fair condition about 125 pounds each. The average live weight of our whole flock of ewes, of this breed, after having been shorn, did not much exceed 100 pounds. The average weight of fleece, in the dirt, after a long sea voyage, was 12½ pounds. In selecting the ewes, I regarded a large size of secondary consideration, preferring those that would yield the most fine wool in proportion to the cost of keeping.

It is believed by many who are unacquainted with the French sheep, that they require more than ordinary feed and attention to keep them in good condition; but my experience with them thus far, leads me to the conclusion that they will thrive well on ordinary keeping. They require nothing more than a good pasture during the summer season. I gave mine nothing more the past season, neither do I intend to the present. They are well adapted to our climate, and will bear exposure to storms equally well with any sheep in the country. A portion of our flock were turned off to pasture after shearing, and came up to their winter quarters looking remarkably well; having had no shelter from the storms during the summer. I should be unwilling to say that I believed the French sheep greatly superior to all other

breeds in every respect, but believe that all experienced and impartial judges will admit that they possess the following desirable points, viz:

1. A good vigorous constitution.
2. They carry a heavy fleece of wool, of a fair grade of fineness.
3. They are gentle and docile in their disposition, and fatten easy.

The above qualities I believe are better combined in these sheep than in any others; but where wool alone is the object, I am of the opinion that there are other varieties of the Merinos of a less size, which will yield as much or more wool in proportion to their size and cost of keeping, than those under consideration. Some few improved flocks of the old Spanish stock, will perhaps compare favorably with them for the profitable production of wool; but the variety to which I have more particular reference, are known as the Silesian Merinos, of which I send you a cut and will send you a description for some future number of *The Plow*. I have washed our French sheep this year, and after shearing, will send you the result.—*The Plow*. GEO. CAMPBELL.

West Westminster, Vt.



Group of Silesian Sheep.

Cheap Wash for Cottages of Wood.

For the outside of wooden cottages, barns, out buildings, fences, &c., where economy is important, the following wash is recommended:—

Take a clean barrel that will hold water. Put in it half a bushel of fresh quick-lime, and slake it by pouring over it boiling water sufficient to cover it 4 or 5 inches deep, and stirring it till slacked.

When quite slacked, dissolve in water and add 2 lbs. sulphate of zinc, (white vitriol,) which may be had at any of the druggists, and which, in a few weeks will cause the whitewash to harden on the wood-work. Add sufficient water to bring it to the consistency of thick whitewash. This wash is of course white, and as white is a color which we think should never be used, except upon buildings a good deal surrounded by trees, so as to prevent its glare,

we would make it a fawn or drab color before using it.

To make the above wash a pleasing cream color, add 4 lbs. yellow ochre.

For fawn color, take 4 lbs. umber, 1 lb. Indian red, and 1 lb. lampblack.

To make the wash gray or stone color, add 4 lbs. raw umber and 2 lbs. lampblack.

The color may be put on with a common whitewash brush, and will be found much more durable than common whitewash, as the sulphate of zinc sets or hardens the whitewash.—*N. E. Cultivator*.

WINTER FEEDING.—Stock when fed during winter in well protected stable-sheds, etc., will consume one-fourth less food than when exposed to the inclemency of the weather.

From Journal of Royal Agricultural Society, by J. Barlow, V. S., Edinburgh Veterinary College.

PRIZE ESSAY—ON ABORTION IN COWS.

[CONCLUDED FROM PAGE 276.]

III. *Causes which, influencing the system or a part of it, act through it on the uterus.*—In many parts of the country, a belief exists that abortion is contagious. From extensive observation and inquiry, we find this opinion founded on the fact, that when abortion once commences in a herd of cows, it frequently affects them in considerable numbers. Whilst we must remember that this is not invariably the case, we are at the same time bound to confess that unless abortion be clearly dependent upon some temporary or accidental cause, it very frequently befalls a number of cows in the same stock the same season. In this, however, there is nothing to establish its contagious character, for many diseases well-known to be destitute of contagious properties will occasionally prevail very extensively among various kinds of animals. Much more than the simple extensive prevalence of a disease is required to prove its contagious nature: we must show,

a. That animals subjected to its supposed influence are affected in greater numbers than others; thus, on introducing an animal or animals affected with a disease among healthy ones, the latter to a greater or less extent, within a certain time, are affected by the same disease.

b. That the separation of diseased from non-diseased animals has a perceptible effect in arresting extensions of the malady.

c. That those animals earliest and most closely connected with the sick, are first affected.

d. That large numbers of animals remain unaffected so long as they do not mix with those which are diseased, although they live in the same building or neighborhood inhabited by those among whom the disease existed.

Now, admitting that abortion in its ordinary occurrence is a disease, and although, as has been stated, it may be induced by causes of various kinds (some of which have been named,) yet, having once occurred among a stock of cows, its further extension among them, does, at first view, seem conformable to the conditions here laid down as proving the character of diseases to be contagious. For cases can be adduced to show that when one or two cows in a herd have, from whatever cause, cast their calves, others pregnant will do the same; and that on a careful and early separation of those first aborting from others still pregnant, the latter remain unaffected.

There are, however, other considerations to be entertained here. In contagion, we assume, that matter in some tangible form, or minutely and invisibly diffused in a gaseous condition, emanating from a diseased animal, passes to some absorbing surface in the body of a healthy one, and there becoming further developed, produces disease also. We think the strongest advocate of contagion, in the present instance, is not prepared to assert that the discharge incident to abortion can be transmitted from the body of one cow to another in the ordinary course of things; and even if such transmission could be effected, we can hardly imagine how abortion could be induced thereby. It is, however, said that the odor attendant upon these discharges, on being smelled by pregnant cows, causes them to abort. But surely this smell cannot act directly upon the uterus, for this organ in itself possesses no power of detecting varieties of odor. We do know, however, that cows are especially acute in detecting, by the sense of smell, when

one of their companions has calved, either prematurely or at the full time of gestation. If a birth take place in the pasture, the cows will collect round the locality at the time, and for many days, even weeks subsequently, will visit and smell at it with a degree of apparent curiosity and pleasure. If a cow calve in the house, other cows are at once aware of the fact, as is shown by their looking about them, snuffing their noses, and by making the fondling noise usually uttered towards their young. It is, also, interesting to notice that if a cow at or near her full time of gestation, calve among a number of her pregnant companions, several of them will usually bring forth their young very soon afterwards, although appearances and record might have led us to suppose that their times of parturition would have been deferred, instead of so closely corresponding. Seeing then that cows are aware of the parturition of their companions, how do they become so? From noticing them at the time, and for various other reasons, we believe that the organ of smell is the channel or medium through which the impression or sense is communicated.

It remains, then, to inquire whether the sensation produced by a peculiar smell or odor can, by "influencing the system, or a part of it, act through it upon the uterus," so as to cause abortion. Preparatory to this short inquiry (and as illustrating the kind of action to which we would refer) we may observe, that in the animal body, we often find a cause of disease acts through one part of the system upon another. For instance, a person with an irritably constituted stomach is seized with nausea or vomiting on smelling a peculiar odor or on seeing some disgusting object; here the eye becomes first cognizant of a cause which operates subsequently upon the stomach. A person with irritable bowels becomes affected with purging on "taking cold," or from having wet feet. Here cold, as a cause, acts first on the external surface, and operates subsequently on the bowels. Almost every animal has some part of the body more susceptible than the rest, and especially liable on that account to become affected by the causes of disease. On this depends the difference of constitution seen in the human being, and also in the lower animals. At the same time, we must remember that the various organs of the body, when in a state of health, act in obedience to certain stimuli; air is the stimulus to part of the respiratory action, and food is the stimulus to the digestive organs. If such stimuli are unnatural in amount or quality, they induce disease; impure air causes affections of the lungs, and food undue in amount or bad in quality produces diseases of the stomach and bowels.

The uterus and ovaries of the young virgin female of any animal, are organs of comparatively small size, and not being concerned in the performance of functions essentially necessary to the vitality of the body, they receive but a small supply of blood and nervous influence. At the adult period of life these organs, having attained their full development, exercise upon the system an influence of the most important kind. In the cow, at periods of œstrum, they receive a greater amount of blood, and their nervous susceptibility is greater than heretofore. If she be allowed intercourse with the male, conception follows; the presence of the fetus maintains a stimulus in the uterus which is continued till the time of parturition; the quantity of blood determined to it is enormous, and the peculiar kind of nervous influence required to take cognizance of its functions progressively increases as gestation advances. The gravid uterus then is the seat of a healthy excitement,

and the due preservation of this depends partly on a quiescent state of the rest of the system; hence the cow, during pregnancy, is more than usually docile. Some persons are of opinion that the imagination of a pregnant animal is easily acted on by impressions which, at other times, would scarcely produce any effect, and many cases can be adduced which show that sudden fright and intense mental emotion have been followed by abortion.

When a pregnant cow, then, is so situated that she can smell the odor arising from another cow which has aborted, we may reasonably expect that the sensation so produced will, from what has been stated, be attended with peculiar consequences. The circle of nervous influence, which establishes a connection between the organs of smell, the brain, and the uterus, will be influenced thereby, and the uterus, from the predisposing nature of its condition and functions, especially responds to this peculiar stimulus. Irritation applied to nerves, induces action in organs to which such nerves pass, and, in the present instance, action, as a result of nervous excitement, is induced in the uterus, which organ continues from time to time to act upon its contents till they are expelled. Thus we conceive it is that odors arising from cows casting calf induce abortion in others of their pregnant companions, and by adopting this explanation we can account for the apparently contagious nature of abortion, without admitting that it is contagious in reality. Other odors of an offensive kind are believed by some (and we think, with good reason,) to cause abortion. Cattle will often collect in numbers around places containing decomposing animal and vegetable matter, and by bellowing and tearing the earth with their feet and horns, will betray a high degree of excitement; this, especially to pregnant animals, cannot fail to be injurious.

Over-feeding seems sometimes to cause abortion, by promoting such a state of system in a cow as is unfavorable to the healthy development of the fetus. It is not animals in a plethoric habit of body that are best adapted for breeding; indeed, it is a common remark that fat cows have generally smaller calves than those not in such high condition. Large quantities of rich and stimulating food may favor the deposition of fat in a pregnant cow, but her circulating blood by being highly charged with nutritious material, becomes less adapted for the requirements of fetal subsistence. In some parts of the country, where cattle are fed on low, marshy ground, or on land yielding rank and succulent herbage, such as grows on meadows occasionally flooded, abortion will occur to a great extent. It seems here to be induced by the irritating or stimulating action which the herbage of these localities exercises on the bowels, which action, being of prolonged duration, ultimately influences the uterus. There is great sympathy, (so called) between the uterus and digestive organs; they lie in close connection with each other, are formed of the same kind of muscle and membranes, and are supplied with blood-vessels and nerves from the same common centres. Among organs in the animal frame so related, there is always a strong disposition to become affected, each in its own way, by much the same common causes of disease, provided those causes act with sufficient intensity. An opinion obtains in some localities, that abortion is produced by cattle drinking the water of particular streams and springs which contain an undue amount of mineral materials. Some waters are known not to agree with animals, more especially with man and the horse, and it is quite possible they may exercise an injurious effect on cows also, but whether any waters which cat-

tle will usually drink are really capable of producing abortion, observation and fair experiment have not yet, in our opinion, sufficed to prove. It is very rare indeed, that cattle, if left to themselves, will eat any kind of plants which produce injurious effects on the system; their exquisite sense of smell and instinctive knowledge cause them to avoid deleterious vegetables as food. We know of no cases in which abortion was fairly traceable to the action of the acrid or poisonous plants.

TREATMENT OF ABORTION.—This is to be considered under two heads; first, the *preventive*, and, second, the *remedial treatment*: the former is to be enforced when certain symptoms present themselves, which, as has been before shown, threaten abortion, and is also to be applied to prevent extension of abortion among healthy animals. The remedial treatment is to be employed in cases of actual abortion.

1. *Preventive Treatment.*—If there are grounds for believing that abortion is caused by mechanical injury, the owner of cattle must exercise strict vigilance over those to whom he intrusts the management of his stock. He must provide against them being apt to suffer from leaping, as they are liable to do when mischief or other inducements tempt them to break their fences. If a pregnant cow has "hoove," the veterinary surgeon or person in attendance must adopt the most summary way of liberating or neutralizing the gas. Every cow should be separated from her companions immediately after she has cast calf, and placed in such a situation that all communication with them by means of smell or otherwise, may be prevented. She must be well supplied with bedding, which is to be kept clean by frequent changing. Care must be taken that the discharges do not collect about her, and if the placenta is retained, means must be used to neutralize the odor arising in consequence of its decomposition. The animal must be kept in a cool, pure atmosphere, and supplied with food and water in moderate quantity. It will be observed that many of the above precautions, which are here advised as means of preventing extension of smell subsequent to abortion, are also highly useful as means of remedial treatment.

Strict attention must be paid to the cows among which the affected animal was kept, in order that the premonitory symptoms of abortion may at once be noticed if they occur. The peculiar colored discharge, which has been before alluded to, is always to be taken as an indication of danger, and if, in addition to its appearance, there is a visible sudden increase in size of the outer organs of generation and udder, beyond what the period of gestation would warrant, we would have little reason to doubt that abortion will take place if means of prevention are not employed. The animal must be copiously bled, placed in a situation where she can be kept perfectly quiet, her diet must be moderate and of such a quality as will favor an open condition of the bowels. *No purgative medicine must be given*—the irritation which this creates would increase the abortive tendency. Our object here is to tranquilize the system and the uterine excitement, and to attain this end we may advantageously administer sedative medicine. None is better than such a formula as the following: 2 oz. of tincture of opium, and 2 oz. of nitrous æther, mixed in an imperial quart of gruel, and given daily, or so long as circumstances seem to require it. Cold water may be copiously applied to the external parts of generation several times daily. We often find that if the above simple means are timely and energetically employed, the symptoms of abortion entirely disappear.

If the liquor amnii has been partially evacuated, and the animal, by arching her back and tail, by lying down and suddenly rising again, (as well as by exhibiting other usual symptoms,) seems actually in labor, the treatment just advised would not only be useless, but highly injurious also. Matters in this case must take their course, for it is only in the absence of the symptoms of immediate labor that blood-letting and the other means recommended can be employed.

If abortion takes place at an early stage of gestation, the premonitory symptoms are rarely noticed, the fetus with its membranes, will be expelled without occasioning much inconvenience to the cow, and oestrus will occur a few days afterwards. The animal, however, should not be allowed access to the male, for her organs of generation are in a state of morbid excitement, and connection with the bull under such circumstances is seldom followed by conception. The cow should be tied in the house until the oestrus has disappeared, and should be carefully watched for its next recurrence, which, if taking place at the natural period, she may be put to the bull and kept perfectly quiet a few days longer. If a cow has irregular periods of oestrus, such as at every ten days or a fortnight, she is almost always the subject of some ovarian or uterine disease, and on no account should such an animal be allowed to have connection with the male, or to be in company with pregnant cows, or cows which are taking the bull in ordinary regularity. Such beasts mostly go bellying about the pasture for days together, they gradually grow thick and coarse in the head and neck, and their outer organs of generation lose much of the natural appearance; they are hurtful nuisances, and should be fed if they will feed, or disposed of in some other way, being utterly worthless for breeding purposes.

When the oestrus returns in a cow regularly every three weeks, and she takes the bull each period without conception following, and we have reason to believe that no sexual deficiency exists in the male, she may be put under treatment which will ensure pregnancy. She should not be allowed connection with the male until the latter part of the period of heat, and after taking the bull she should be bled freely, and confined several days after oestrus has disappeared. During the time of being kept up, a moderate amount of her usual food must be allowed; no medicine of any kind is needed, but, if the owner please, he may from time to time throw a pailful of cold water on the hinder parts of the animal, especially over the organs of generation. No cow after taking the bull, and while still in heat, should be allowed in pasture with other pregnant cows; her society unsettles them, and by smelling at her they receive impressions which act injuriously. When an indisposition to conceive, or, as it is sometimes termed, "breaking bull," exists extensively in a stock, and the cows in numbers are continually coming in heat, they should all of them be confined in the house till oestrus is about going off, then be put to the male, and confined for a day or two more. If the farmer thinks proper he may bleed them; this, beyond lessening their milk for a few days, will do no harm. The medicines which farriers and old women sometimes recommend to make cows "hold to the bull," or conceive, are unworthy of dependence.

A cow which has cast calf several times in succession, acquires such a habit, (if it may so be termed,) of doing so, that it is exceedingly difficult to overcome. Notice should be taken of the period of each abortion, and in her next pregnancy, a fortnight or

so before the accession of this period, she should be bled, tied up, and treated as before advised for prevention. She should be confined for some time, so as to ensure the utmost quietness. If such measures are not effectual towards promoting what is desired, it is best to feed or sell the animal. Such cows as this, on being taken to another farm or fresh herd, will very often take the bull and carry their calves to the full period of gestation.

In those unhappy instances where abortion to a destructive extent occurs in a stock of cows for years successively, and seems rather to increase than to diminish in prevalence, we have to contend with the pest in its most formidable character. A breeder or farmer does not like to sell animals to which he attaches great value, yet by separating the affected from the non-affected cows, and by adopting every other remedial and preventive plan of treatment, which his own experience or professional knowledge can suggest, he sees matters becoming worse season after season. We believe, that under the circumstances, nothing short of changing his affected stock, by feeding or selling them off, will be of any service. He may do so at a great sacrifice, but it will be less than the one which from appearances he will in all probability incur, by having every year a number of cows supplying neither calves, nor much amount of milk. The longer this decisive step is delayed after fairly trying other methods of prevention, the worse matters usually become; and hence the importance during two or three years, when abortions are few in number, and confined to much the same cows, of feeding or otherwise disposing of these animals.

If abortion be confined mainly to animals in high condition, it is generally fair to infer that over-feeding is the predisposing cause, and the other cows still pregnant may, at all events, be more limited in diet. If, on the other hand, it seems to depend on poverty in condition, a more liberal supply of food is the obvious remedy. When it is owing to the irritation or exhaustion caused by other diseases, such as consumption, dysentery, murrain, &c., there is little probability of any preventive measures being attended with success, even if it were worth while to employ them.

2. *Remedial Treatment.*—It has been stated, that when abortion occurs during the first few weeks of gestation, it does not seem to occasion much inconvenience or constitutional disturbance to the cow. At this period, as the fetus is of small size, the membranes are also in a rudimentary state of development, and are not so firmly attached to the uterus as they ultimately become; on this account they are readily expelled with their contents. Little treatment is required in cases of this kind, beyond keeping the affected cow from her companions, and also from the male.

Abortion occurring subsequently to the ninth or twelfth week, is a more serious matter. Here the premonitory symptoms may also have escaped notice, and the fetus may have been expelled without any difficulty, but the placenta is almost always retained, and becomes an offensive source of annoyance to the cow and her attendants. There is sometimes very little of it hanging from the vulva, and a slow decomposition, attended by discharge of a very peculiar and most offensive odor, is established in the protruding portion, as well as that retained in the uterus. Decomposition is commenced in some cases before abortion takes place, and little or none of the cleansing will make its appearance for some days after the expulsion of the fetus. The presence of this now foreign body in the uterus and vagina induces an

unhealthy inflammatory condition of the lining membrane of these organs, and, from the irritation thus established, it is not unusual for the cow to become feverish, refuse her food, and rapidly fall off in condition.

The fetus is to be securely buried as soon after abortion as possible. All persons agree in the propriety of adopting such a practice, but a singular difference of opinion exists with regard to the propriety of removing the cleansing, or of suffering it to remain. Those who advocate letting it remain, advise that the passages containing it should be kept as clean as possible, and that antiseptic preparations should be used to destroy the offensive odor which it generates. They seem to imagine that danger which they cannot describe is likely to arise if mechanical means are employed to remove it. A person, however, who understands the anatomy and functions of the organs concerned, is fully aware that such an idea is fallacious, and knows that, unless under some peculiar circumstances, he can take the cleansing away with perfect safety. It is surely better to do this than subject the cow to the well-known inconveniences of its retention. In order to satisfy himself of the propriety of removing it, the operator, after having the cow securely held, washes out the vagina with warm water; he then introduces his hand, well oiled, to feel if the os uteri is sufficiently open to allow it to pass into the uterus; if so, there is not the slightest danger in attempting to take the cleansing away. Should any part of the membranes be hanging from the vulva, they must be taken hold of by the other hand, twisted several times round, (so as to render them less liable to break,) and pulled at gently. By thus stretching them the operator is better enabled to feel with his hand in the uterus where the attachments between it and the cleansing are situated. He gradually passes his hand round the interior of the uterus and loosens the points of connection, commencing at the entrance and proceeding to the horns of the womb, to one of which the cleansing is mainly attached. He may require to exercise some degree of pulling or separating force with the hand thus employed, and should be careful not to tear the cleansing more than he can possibly avoid; it is always better to remove it at once (if possible) than piecemeal. When the hand can be passed into the uterus, and if decay of the cleansing be not too far advanced, there are very few cases in which we cannot remove it by exercising due precaution. After extraction has been accomplished, the uterus should be gently but well syringed with tepid water, among which a small quantity of chloride of lime may be dissolved. A competent operator incurs no risk of injuring the uterus, for all the necessary force of manipulation is applied to the attached points of the cleansing.

Some persons who have objections to the above mode of proceeding, in consequence of the extremely offensive stench, the disgusting nature of the discharge, or from an erroneous idea of injurious consequences which they suppose likely to ensue, attach weights to the cleansing, in order, as they imagine, to drag it away. The force thus applied mostly causes the membranes to break inside the vagina, and not being determined to the real points of attachment, is seldom of much benefit; moderate pulling force, occasionally applied by the hand, in a horizontal direction is much preferable, although but rarely effective in bringing the cleansing away. If the prejudice of the owner be such as not to allow of any mechanical interference for its removal, and if he be not incorrigibly careless and ignorant, he may wash the cleansing repeatedly with a solution of chloride

of lime, and inject a diluted form of the same into the vagina; this, with a plentiful supply of clean litter, will in some measure, overcome the effluvia always present in these cases. Some farmers smear the walls and wood work of their cowhouses with tar and melted pitch, to counteract, or, as they think, to prevent the smell alluded to; there is no harm in adopting such a practice, but there is little amount of good derived from it in comparison with that attendant upon taking the cleansing away, rigidly separating the affected animals from others, and otherwise treating them as here advised.

"Cleansing drinks," so called, are extensively prescribed by farriers and druggists in various parts of the country, under the idea that such compounds in some way or other promote expulsion of the cleansing. These drinks are, for the most part, composed of stimulating aromatic ingredients, combined with purgative and diuretic medicines. They are seldom productive of any good effects beyond those which depend on their purgative action, whilst their aromatic and resinous properties very frequently render them highly injurious, by acting directly on a class of organs previously irritated, and probably in a state of inflammation. A dose of saline purgative medicine, such as half a pound to a pound of Epsom salts, with an ounce of ginger, and half a pound of treacle, mixed in a quart or three pints of meal gruel, is frequently of service, and forms about the only "cleansing drink" which the non-professional man should trust himself to administer. If the animal be really weak and in low condition, half a pint to a pint of good ale may be combined with the drench here recommended. If the bowels are already sufficiently open to forbid the use of laxative medicine, ale with treacle-gruel may be given instead. Ergot of rye is much relied on by some, as causing expulsion of the cleansing. We have not found it to be a medicine to be much depended on in this respect. It has been given in two-drachm and half-ounce doses to pregnant rabbits and bitches daily, for weeks together without producing any perceptible uterine action. —See "Edinburg Medical and Surgical Journal," for 1840.

If the placenta is retained, and the hand of the operator cannot be introduced into the uterus, in consequence of contraction of the os uteri, and if no part of the cleansing can be taken hold of, the calf-bed must be syringed with warm water, by means of a suitable instrument, which the veterinary surgeon, for the most part, is alone competent to use. It is improper to attempt removal of the cleansing, as before advised, if the hand cannot be introduced into the uterus by applying a moderate degree of dilating pressure, or if the cleansing is so firmly attached as not to give way to the application of reasonable force.

After some cases of abortion, as well as after some of ordinary parturition, the cow is affected with severe straining, or bearing down, called after-pains. These will, in cases of abortion, sometimes continue for several days, and induce a highly feverish state of system in the suffering animal. They are occasionally accompanied by a discharge of blood, and are mostly observed when the cleansing is entirely retained in the uterus, and apparently depend on the already irritable calf-bed suffering under additional excitement induced by the dead weight and peculiar position of the cleansing, now to be regarded as a foreign body, and which it is desirable to expel. After ordinary parturition, these straining efforts are sometimes so energetic, as to cause "throwing down" of the uterus. Although this accident seldom occurs

after abortion, in consequence of the small size of the os uteri and outer passages, yet, for the relief of the animal, it is desirable that, if possible, these pains should be overcome. Two or three ounces of tincture of opium and two ounces of nitrous ether may occasionally be given in a quart of warm gruel. The hand should be introduced to ascertain if the cleansing be loosened, and, as is sometimes the case, entangled upon itself near the neck of the uterus; if it can be removed, or even drawn towards the vagina, straining mostly ceases.

A cow, after abortion, should be fed on good food, but of such a quality as will induce a lax condition of the bowels; boiled barley or linseed, cooked roots, as turnips and carrots, form excellent diet. If, from prolonged straining and other causes of irritation, she is so feverish as not to feed at all, she must be offered plenty of drink, and if she will take flour or linseed gruel, sweetened with treacle, we need be under no great anxiety regarding her not feeding. Provided she will neither eat nor drink, we must (during the time our best endeavors are directed to the removal of the real cause of irritation and fever) support her by administering gruel with a horn or bottle. The stimulating drenches of the farrier and cowleech must be strictly avoided; if any tonics or mild restoratives be really needed, the using of them can only safely be intrusted to the veterinary surgeon.

When abortion is caused by mechanical injuries suddenly inflicted, the uterus sometimes begins to contract, and forces the fetus into the os uteri and vagina, before these organs have been sufficiently dilated to allow its free expulsion. The cow may even continue straining for days, and all her efforts only seem to impact the fetus still more firmly, and some part of it, as the head, neck, or feet and legs, will, for this period, protrude from the vulva. In some cases, her strength becomes exhausted, and she may die undelivered. This untoward event more particularly occurs to young animals, where the passages to the uterus have not acquired that capacity which they attain during the process of natural parturition. The assistance of an experienced practitioner is required here, and, for the safety of the mother, he frequently finds it needful to dissect away the fetus piecemeal. In some cases, firm and judiciously applied pulling force will be sufficient to effect its abstraction; in others, an incision may be made with a suitable knife along the lower part of the belly and chest of the fetus, the viscera of these cavities removed, then, by drawing it at its head and legs, the sides of the body are compressed, and delivery is effected.

"Cross births," or "false presentations," seldom interfere with delivery in abortion occurring at an early period of gestation, but if it be delayed until within six or nine weeks of the time of natural parturition, they sometimes prevent expulsions of the fetus. False presentations with abortion are often more difficult to rectify than when they occur at natural parturition, and in cases of this kind the aid of an experienced and dexterous practitioner is required, whose best care is needed to ensure the cow's safety. If she had been straining for some time, and the liquor amnii is partly evacuated without any appearance of the fetus, the hand of the operator must be introduced to ascertain its position. The presentation is almost always unnatural if the fetus is not expelled within a reasonable time after rupture of the membranes, yet in some instances, although the water-bag has burst, the cow is cruelly allowed to pass several days under labor-pains, without attempts being made to relieve her. This is culpable neglect,

for delay of this kind always increases the danger and difficulty of delivery, and retards recovery. On introducing the hand it is possible that the os uteri may not be sufficiently open to allow the necessary manipulation; such being the case, steady attempts may be made to dilate it, and sufficient time allowed for the purpose. If the pains are very severe, an occasional dose of laudanum may be given to relieve them; *chloroform* is highly efficacious in promoting the same end. Some persons advocate bleeding, but this is a remedy which, under all circumstances of the case, we would rarely advise. Other practitioners recommend the application of extract of belladonna and other sedative substances to the os uteri; their beneficial action, however, is very doubtful. We believe that cautious, continued attempts at dilatation, by expanding the hand in the contracted part, affording due time for the efforts of nature herself, and the administration of tinct. opii, as advised, are the safest and most efficient means of promoting an enlargement of the os uteri. When the opening is sufficiently increased in size, the presentation, if false, must be rectified, and the fetus taken away. The methods of remedying these presentations must be left to the practitioner, and are chiefly the same as those required in like cases attendant on ordinary parturition. When delivery is completed, the cleansing must be taken away by adopting the method before advised for its removal.

After abortion, even in cases where the cleansing has been expelled, a discharge of a peculiar kind usually flows from the uterus for several weeks successively. It is different in character from the natural lochia, and if so copiously secreted as to interfere with the comfort and health of the animal, we may advantageously counteract its ill effects by occasionally syringing the uterus with tepid water and diluted solutions of the chloride of lime. Sulphate of iron in half-ounce doses, finely powdered, and given twice daily among a mash, will be found a very useful tonic; it also seems to possess some effect in arresting the discharge and in restoring the mucous membrane of the uterus to its healthy tone.

Cows, and especially young ones, which have aborted, and have had great difficulty in delivery or in getting rid of the cleansing, are frequently a long time before they will again "take bull." This indisposition for sexual connection with the male, induced by injuries which the uterus has sustained and the shock which the system as a whole has received, is best overcome by giving tonic medicines, using every possible local application to restore natural tone in the uterus, and especially by allowing plenty of good food, air, and exercise. Inflammation of the uterus sometimes succeeds abortion; it is induced most frequently by the rough usage to which the uterus is occasionally subjected, and is known by the animal becoming feverish, being off her feed, breathing quickly and laboriously, arching the back, straining, and voiding considerable quantities of brownish-looking fluid, tinged with blood, which, in advanced stages of disease, is mixed with portions of the inner lining of the uterus, emitting a highly offensive odor.

In treating this affection the uterus must be frequently but gently syringed with tepid water; hot sacks or cloths wrung from hot water must be laid on the loins; the bowels must be kept gently open by means of mild laxative medicines if required, and plenty of tepid water or gruel must be given to drink. When a favorable change is about taking place, the uterine discharge becomes lighter in color, and eventually assumes the character of pus; return

of the appetite speedily follows, and a rapid abatement of the fever is also obvious. This disease, when owing to a considerable rent or tear in the uterus, is generally fatal in a day or two.

There are some few cases in which death succeeds abortion in a remarkably short space of time, and seems to come on without any apparent cause. It will, however, generally be found that in instances of this description the cow has been roughly handled, has been many hours and may be days, in painful labor, has had little nourishment afforded, and was, perhaps, constitutionally weak in the outset.

Practice of Shoeing Horses.

By CHARLES PERCIVAL, VETERINARY SURGEON, ROYAL ARTILLERY.

MR. EDITOR—Sir: I have lately been devoting much attention to shoeing, and flatter myself that the horses under my care are as well shod as any in her majesty's service.

The shoe I found in use here was made concave next to the foot, and flat on the ground surface, than which, in my opinion, nothing can be worse. This shoe I have had reversed, making the latter as concave as the foot will possibly admit of, leaving only sufficient room between the shoe and the foot for the pricker to pass freely round, to remove dirt, &c. To the heels of the shoe I have given an inclined plane outwards on the foot surface, with three nails on the inside and four on the outside. The heels, instead of being cut off straight, are well sloped, and about the same thickness as the toe. The shoe one third as thick at the heel as the toe, recommended by the late professor, the majority of our horses could not travel in. There are many pernicious practices which smiths in general, if left to themselves, fall into, viz:

1. *Mutilating the frogs by improper cutting.* I have at length got my farriers to understand, that the only part of the frog which ever requires cutting, unless ragged, is the point, to prevent the sensible frog being bruised between it and the coffin bone.

2. *Inflicting serious injury to the crust,* by an improper use of the rasp, but especially the coarse side of it.

3. *In fitting the shoes, by cutting too much out of the crust at the toe, to admit the clip.* The shoe is consequently set too far back, instead of being fitted full to the crust, and afterwards rasping away the crust, making the foot in fact, to fit the shoe, instead of the shoe to fit the foot. This is a faulty practice, and very seriously so, which smiths in general are very apt to fall into; one, too, which renders the crust shelly, for that part into which the nails are driven from time to time, is in this way rendered weak.

4. *In turning shoes,* smiths in general do not attend sufficiently to bevelling or sloping the edge of the shoe, from the foot to the ground surface, which I consider of great importance, especially if horses are given to cut or interfere in their action.

5. *Cutting the heels of the shoe off straight.* This is also a very bad practice. If well sloped, like a shoe for hunting, to which there cannot be any objection, they are less liable to be pulled off by the hind shoe catching in them, and contribute more to the safety of both horse and rider.

6. *Leaving the inner edges of hind shoes at the toe sharp,* which, if rounded, will in a great measure prevent overreaches, as well as render the fore shoes less liable to be pulled off by their catching in the heels of the former. Squaring the toe of the hind shoe for horses that forge, or "carry the hammer and pincers," as it is termed, leaving the horn projecting

over the shoe, is, in my opinion, good as a general rule, not only preventing that unpleasant noise, but rendering horses less liable to overreach and pull off their fore shoes, provided, however, attention be paid to rounding the inner edge.

7. *In rasping the under part of the clinches,* farriers are very apt to apply the edge of the rasp improperly to the crust, forming a deep groove round the same, which cannot but be injurious to the foot, and, together with taking away too much of the crust in finishing off the foot, must have a tendency to render it shelly. Curving the shoe at the toe, after the French fashion, where horses go near the ground, I am very fond of; but I cannot see any advantage in it as a general practice.—*Veterinarian.*
Portobello Barracks, Dublin.

Adaptation of Crops to Market.

The farmer who is wide awake to his business should watch, as well as follow, the markets. He should know what crops will sell well. So far as he can form a probable or approximate opinion on this point, he should conform his cultivation to it. In some places, he can produce milk to advantage; in others, butter or cheese. Again, he may be so situated that neither of these articles will pay him so good a profit as some others. Here his main crop will be hay, there fruit; here potatoes, there squashes and other vegetables.

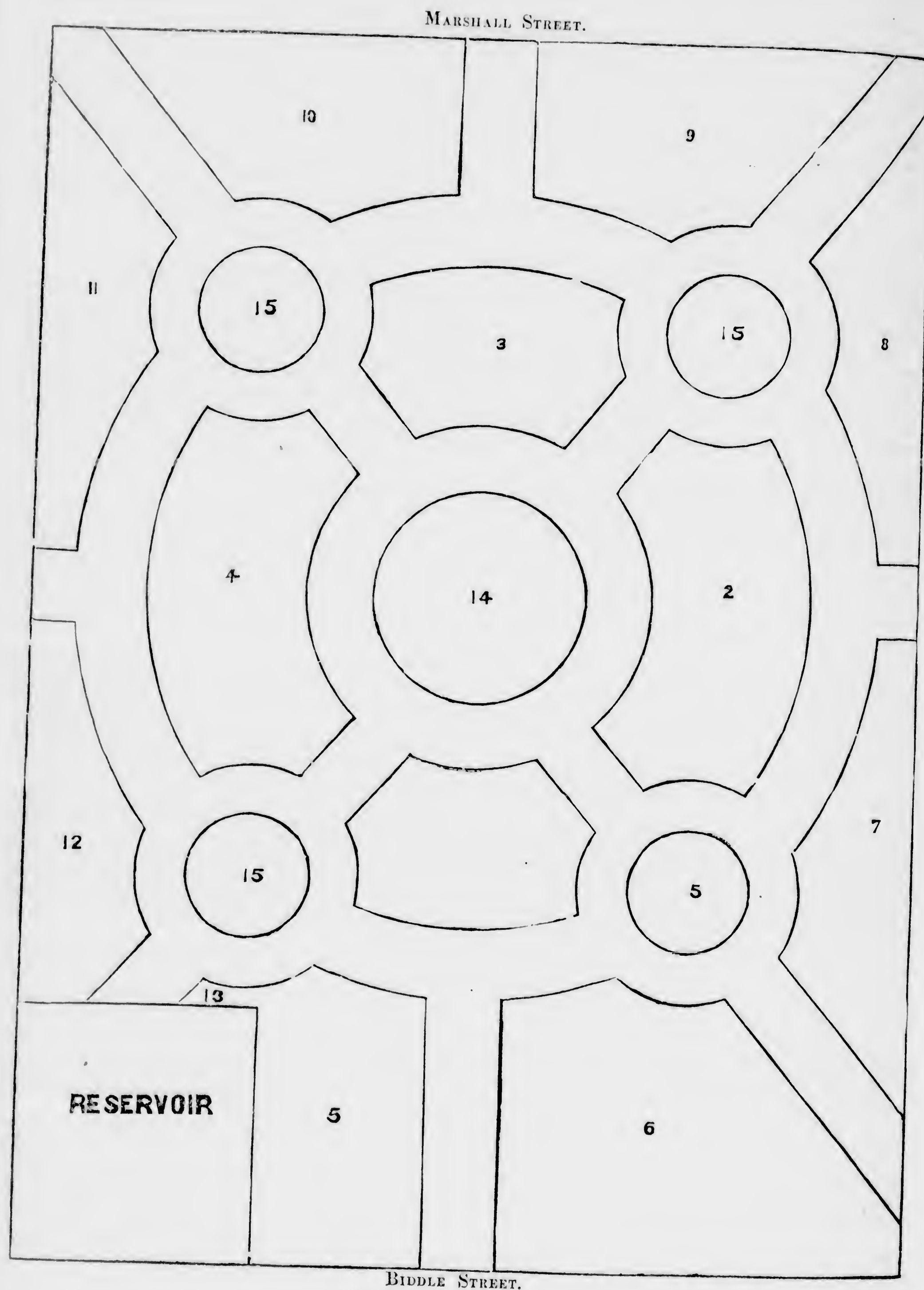
A farmer in Beverly, last year, raised on two and a half acres of land 18,000 cabbages per acre, the nett receipt of which averaged him \$450. Another farmer, in Danvers, cultivated an acre of land with sage, and realized the handsome profit of \$400. The cultivation of the onion in this latter town gives employment to many hands, and is the source of large profits.

Other examples might be cited to illustrate the importance of adapting crops to the markets, such as the production of the smaller fruits in the neighborhood of cities. It is not the crop on which the farmer himself sets the highest value that should be raised by him, but the crops he can produce at the least expense, and sell to the greatest profit.

Some farmers are fearful of loss, if they diverge from the beaten track. They go on, therefore, cultivating the same products, and often on the same fields, as did their fathers. Other farmers seem to entertain the opinion that unless they raise the heavier products—corn, and potatoes, and grain, and hay—they are no longer farmers, but a sort of market gardeners.

But away with such idle fears and foolish notions! Let our farmers study their true interests. Let them not stand still while others are going ahead. Let them be up and doing something to supply the wants of the towns and cities in their vicinity; and not the necessities only, but the tastes also. Let them raise flowers, even, if it will pay a profit! Why not? The taste for flowers is an innocent and rational one; why should it not be gratified?

There are many articles not yet cultivated to any extent among us, that may doubtless be raised to advantage. For example, some vegetable product, such as the castor oil bean, might be introduced and raised, to afford an oil for a domestic light, or for mechanical purposes. Whale oil cannot be produced fast enough to supply the demand. Some substitute, drawn from mother earth, will doubtless be soon introduced. Sunflower seed might, perhaps, be found to answer. But we must leave the subject for the present, hoping soon to resume it.—*Plough, Loom and Anvil.*



Horticultural and Floricultural.

List of Trees and Shrubs in Marshall Square, West Chester, Pa., as in Sections of Engraving opposite.

SECTION NO. 1.

Betula Alba,
Magnolia Frazeri,
Acer Rubrum,
Acer Pseudoplatanus,
Liriodendron Tulipifera,
Acer Nigrum,
Aesculus Hippocastanum,
Cupressus Thuyoides,
Cytisus Laburnum,
Chionanthus Virginica,
Acer Macrophyllum,
Larix Americana,
Liquidambar Styraciflua,
Betula Populifolia,
Salix Babylonica,
Fraxinus Americana,
Acer Platanoides,
Acer Saccharinum,
Corydonia Japonica,
Cornus Florida,
Salisburia Adiantifolia,
Pinus Sylvestris,
Aesculus Rubicunda,
Cedrus Libani,
Virginia Lutea,
Shepherdia Argentea,

SECTION NO. 2.

Abies Nigra,
Liquidambar Styraciflua,
Magnolia Glauca,
Ostrya Virginica,
Acer Nigrum,
Magnolia Umbrella,
Fraxinus Epiptera,
Urtica Triloba,
Acer Saccharinum,
Quercus Palustris,
Acer Eriocarpum,
Magnolia Acuminata,
Salix Babylonica,
Picea Pectinata,
Betula Papyracea,
Acer Rubrum,
Quercus Macrocarpa,
Tilia Glabra,
Magnolia Macrophylla,
Cornus Florida,
Betula Nigra,
Fraxinus Excelsior,
Acer Negundo,
Pyrus Sorbus,
Salix Variegata,
Taxus Hibernica,

SECTION NO. 3.

Aesculus Rubicunda,
Larix Americana,
Pyrus Spectabilis,
Magnolia Cordata,
Acer Platanoides,
Pinus Douglasii,
Acer Pseudoplatanus,
Fraxinus Americana,
Paulownia Imperialis,
Acer Nigrum,
Betula Excelsa,
Pinus Sylvestris,
Salix Babylonica,
Liriodendron Tulipifera,
Quercus Alba,
Celtis Occidentalis,
Cornus Florida,
Taxodium Distichum,
Magnolia Umbrella,
Acer Rubrum,
Cupressus Thuyoides,
Populus Alba,

White Birch.
Frazer's Magnolia.
Red Maple.
European Sycamore.
Tulip Poplar.
Black Maple.
English Horse Chestnut.
White Cedar.
English Laburnum.
American Fringe Tree.
Oregon Maple.
Black Larch.
Sweet Gum.
Poplar Leaved Birch.
Weeping Willow.
White Ash.
Norway Maple.
Sugar Maple.
Japan Quince.
American Dogwood.
Japan Ginkgo Tree.
Scotch Pine.
Red Flowered H. Chestnut.
Cedar of Lebanon.
Yellow Virginia.
Buffalo Berry.

Black Spruce.
Sweet Gum.
Swamp Magnolia.
Hop Hornbeam.
Black Maple.
Umbrella Magnolia.
Winged Ash.
Papaw.
Sugar Maple.
Pin Oak.
Silver Maple.
Cucumber Magnolia.
Weeping Willow.
Silver Fir.
Paper Birch.
Red Maple.
Mossy Cup Oak.
American Linden.
Long Leaved Magnolia.
American Dogwood.
Black Birch.
European Ash.
Ash Leaved Maple.
Service Berry.
Variegated Leaved Willow.
Irish Yew.

Red Flowered H. Chestnut.
Black Larch.
Chinese Flowering Apple.
Heart Leaved Magnolia.
Norway Maple.
California Pine.
European Sycamore.
White Ash.
Paulownia.
Yellow Flowered H. Chestnut.
Black Maple.
Tall Birch.
Scotch Pine.
Weeping Willow.
Tulip Poplar.
White Oak.
Nettle Tree.
Dog Wood.
Bald Cypress.
Umbrella Tree.
Red Maple.
White Cedar.
Silver Leaved Poplar.

Pinus Excelsa,
Syringa Vulgaris,

Nepal Pine.

Lilae.

SECTION NO. 4.

Liquidambar Styraciflua,
Betula Nigra,
Cornus Florida,
Magnolia Conspicua,
Tilia Glabra,
Acer Nigrum,
Fraxinus Ornus,
Aesculus Flava,
Acer Rubrum,
Picea Pectinata,
Salix Babylonica,
Magnolia Acuminata,
Acer Eriocarpum,
Fraxinus Epiptera,
Acer Saccharinum,
" Negundo,
Quercus Cerris,
Magnolia Frazeri,
Fraxinus Excelsior,
Abies Nigra,
Ulmus Suberosa,
Pinus Pinaster,
Abies Rubra,
Chionanthus Virginica,

SECTION NO. 5.

Euonymus Atropurpureus,
Tamarix Gallica,
Pinus Sylvestris,
" Austriaca,
Laurus Sassafras,
Rhamnus Catharticus,
Prunus Borealis,
Pyrus Aucuparia,
Buxus Sempervirens,
Maclura Aurantiaca,
Gordonia Pubescens,
Cerasus Mahaleb,
Picea Pectinata,
Staphylea Trifolia,
Taxus Canadensis,
Populus Alba,

SECTION NO. 6.

Laurus Sassafras,
Pyrus Americana,
Gordonia Pubescens,
Populus Alba,
Aesculus Hippocastanum,
Robinia Pseudacacia,
Buxus Sempervirens,
Larix Europaea,
Acer Eriocarpum,
Ilex Opaca,
Taxodium Distichum,
Maclura Aurantiaca,
Ulmus Glutinosus,
Tamarix Gallica,
Picea Pectinata,
Staphylea Trifolia,
Colutea Arborescens,
Ulmus Americana,
Juniperus Virginiana,
Betula Lenta,
Acer Striatum,
Euonymus Atropurpureus,
Cerasus Mahaleb,
Quercus Lyrata,
Liriodendron Tulipifera,
Ptelea Trifoliata,
Ailanthus Glandulosa,
Abies Excelsa,
Cedrus Deodara,
Magnolia Purpurea,
Rhus Cotinus,
Taxus Baccata,
Populus Laevigata,
Fraxinus Salicifolia,

SECTION NO. 7.

Nyssa Multiflora,
Cerasus Serotina,
Abies Canadensis,
Quercus Falcata,

Sweet Gum.
Black Birch.
Dogwood.
Chinese Magnolia,
American Linden.
Black Maple.
Flowering Ash.
Yellow Flowering H. Chestnut.
Red Maple.
Silver Fir.
Weeping Willow.
Cucumber Tree.
Silver Maple.
Winged Ash.
Sugar Maple.
Ash Leaved Maple.
Turkey Oak.
Frazer's Magnolia.
European Ash.
Black Spruce.
Cork Elm.
Cluster Pine.
Red Spruce.
White Fringe.

Burning Bush.
French Tamarisk.
Scotch Pine.
Austrian Pine.
Sassafras.
Purging Buckthorn.
Choke Cherry.
Mountain Ash.
Tree Box.
Osage Orange.
Franklinia.
Perfumed Cherry.
Silver Fir.
Bladder Nut.
American Yew.
Abele Tree.

Sassafras.
American Mountain Ash.
Franklinia.
Abele Tree.
English Horse Chestnut.
Locust.
Box Tree.
White Larch.
Silver Maple.
American Holly.
Bald Cypress.
Osage Orange.
American Alder.
French Tamarisk.
Silver Fir.
Bladder Nut.
Bladder Senna.
American Elm.
Red Cedar.
Sweet Birch.
Moosewood.
Burning Bush.
Perfumed Cherry.
Over Cup Oak.
Tulip Poplar.
Shrubby Trefoil.
Tree of Heaven.
Norway Fir.
Deodar Cedar.
Purple Magnolia.
American Fringe Tree.
English Yew.
Smooth Poplar.
Willow Leaved Ash.

Sour Gum.
Wild Cherry.
Hemlock Spruce.
Spanish Oak.

Acer Nigrum,
Fagus Purpurea,
Magnolia Acuminata,
Populus Tremuloides,
Platanus Occidentalis,
Fraxinus Ornus,
Quercus Robur,
Populus Grandidentata,
Tilia Argentea,
Fraxinus Salicifolia,
Thuya Orientalis,
Pinus Variabilis,
Pinus Rigida,
Stuartia Malachodendron,

SECTION NO. 8.

Uvaria Triloba,
Quercus Heterophylla,
Acer Negundo,
Fraxinus Pendula,
Fagus Sylvatica,
Platanus Occidentalis,
Magnolia Frazeri,
Salix Annularis,
Quercus Phellos,
Halesia Diptera,
Pinus Strobus,
Magnolia Glauca,
Pinus Inops,
Picea Pinsapo,
Populus Heterophylla,

SECTION NO. 9.

Rhamnus Catharticus,
Quercus Rubra,
Acer Eriocarpum,
Ulmus Americana,
Staphylea Trifolia,
Quercus Nigra,
Populus Tremuloides,
Acer Negundo,
Quercus Coccinea,
Rhus Typhina,
Betula Lenta,

SECTION NO. 10.

Pyrus Coronaria,
Rhus Typhina,
Robinia Pseudacacia,
Liriodendron Tulipifera,
Ulmus Latifolia,
Quercus Tinctoria,
" Montana,
Larix Europaea,
Betula Alba,
Paulownia Imperialis,

SECTION NO. 11.

Ilex Opaca,
Pinus Strobus,
Fraxinus Pendula,
" Sambucifolia,
Juniperus Virginiana,
Platanus Orientalis,
Fagus Ferruginea,
Quercus Prinus,
Salix annularis,
Halesia Diptera,
Cerasus Serotina,
Acer Striatum,
Nysa Multiflora,
Populus Auriplia,
Zanthoxylum Fraxineum,
Thuya Orientalis,

SECTION NO. 12.

Tilia Heterophylla,
Fraxinus Juglandifolia,
Gymnocladus Canadensis,
Acer Nigrum,
Quercus Imbricaria,
" Coccinea,
" Castanea,
Robinia Pseudacacia,
Halesia Tetraptera,
Fraxinus Sambucifolia,
Abies Canadensis,
Andromeda Arborea,
Juniperus Virginiana,

Black Maple.
Purple Beech.
Cucumber Magnolia.
Quaking Aspen.
Buttonwood.
Flowering Ash.
English Oak.
Large Toothed Aspen.
Silver Leaved Linden.
Willow Leaved Ash.
Chinese Arbor Vitae.
Two and Three Leaved Pine.
Three Leaved Pine.
Stuartia.

SECTION NO. 13.

Papaw.
Bartram Oak.
Ash Leaved Maple.
Weeping Ash.
European Beech.
Buttonwood.

Frazer's Magnolia.
Ring Leaved Willow.
Willow Oak.
Two Winged Halesia.
White Pine.
Swamp Magnolia.
Jersey Pine.
Mount Atlas Cedar.
Various Leaved Poplar.

SECTION NO. 14.

Purging Buckthorn.
Red Oak.
Silver Maple.
American Elm.
Bladder Nut.
Black Jack.
Quaking Aspen.
Ash Leaved Maple.
Scarlet Oak.
Staghorn Sumach.
Sweet Birch.

SECTION NO. 15.

Crab Apple.
Staghorn Sumach.
Locust.
Tulip Poplar.
Broad Leaved Elm.
Black Oak.
Rock Chestnut Oak.
European Larch.
White Birch.
Paulownia.

SECTION NO. 16.

American Holly.
White Pine.
Weeping Ash.
Black Ash.
Red Cedar.
Oriental Buttonwood.
White Beech.
Chestnut White Oak.
Ring Leaved Willow.
Two Winged Halesia.
Wild Cherry.
Moosewood.
Sour Gum.
New Abele Tree.
Tooth Ache Tree.
Chinese Arbor Vitae.

SECTION NO. 17.

Various Leaved Linden.
Walnut Leaved Ash.
Kentucky Coffee Tree.
Black Maple.
Laurel Oak.
Scarlet Oak.
Chestnut Oak.
Locust.
Silver Bell.
Black Ash.
Hemlock Spruce.
Tree Andromeda.
Red Cedar.

Kalmia Latifolia,
Fraxinus Quadrangulata,
Hibiscus Syriacus,
Laurel.
Blue Ash:
Common Althaea.

SECTION NO. 13.

SECTION NO. 14.

In the centre of this circle, and near the centre of the Square, is a *Magnolia Acuminata*, a magnificent and tall growing tree, and one of the noblest of our native forest: having wide-spreading, horizontal branches. At right angles from it, and at equal distances, along the outer edge of the circle, are our native Balm of Gilead and American Judas Tree, eight of them, planted alternately. In each of the four smaller circles, marked 15, is *Abies Excelsa*, "Norway Spruce Fir." The whole occupying $5\frac{1}{2}$ acres.

Public Square at West Chester, Pa.

With the view of inducing others of our inland towns, to take early measures to appropriate a few acres for the purposes of a public square, we embrace the opportunity to inform our readers, not what may be done, or what ought to be done, but what *has been* done in West Chester. Marshall Square, containing $5\frac{1}{2}$ acres, and laying on the north eastern section of the borough, was more than four years ago, appropriated by the borough authorities to the purposes of a Public Square, by the name of *Marshall Square*, in commemoration of the "exemplary character and scientific labors of Humphrey Marshall, whose botanic garden and residence was a few miles west of the borough. The design in the annexed engraving was arranged at the suggestion of, and the accompanying list of trees and shrubs, selected by three of our most eminent botanists, all residing at this place, Dr. Wm. Darlington, David Townsend and Joshua Hoopes. They were furnished from the extensive nursery grounds of Paschall Morris & Co., of West Chester, and the planting also attended to by them. They are all now growing, and many of them of considerable size, and it is believed furnish the largest, and best collection of choice trees and shrubs, for public pleasure grounds, in the State out of Philadelphia.* The taste for ornamental planting, public and private parks, and arboretums is decidedly on the increase. Rail Road lines completed, and others projecting, will soon traverse every portion of the State. New towns and villages are springing up out of the native forests, and while land is comparatively cheap, and every corner is yet unoccupied with the remorseless demands of trade and commerce, we should hope the appropriation of a space for a public square, in all our new, and many of our old settled towns, may not be forgotten. We should be willing, indeed that no act of incorporation for a new town or borough, should be granted by our Legislature without a provision requiring something of this kind. Future generations, at least, would thank them for it, in the increased health, comforts, and attractions, which invariably accompany these "lungs or breathing places" of densely populated towns and cities. The wise foresight of the Founder of Philadelphia in reserving

grounds for the Public Squares which are now its chief ornaments, is well worthy of imitation throughout the State. Independent of the increased value for residences of adjacent property, their exceeding beauty, and advantage in respect to health: there is also, we think, a high moral influence of no mean importance on the population of a large city, exerted by these open spaces, tastefully laid out and interspersed with fine trees and shrubbery. Hyde Parke, in London, consists of 800 acres. Regents Park of 336, with its Royal Botanic and Zoological Garden, the latter of 20 acres. Fifty thousand people, of all classes, of a fine afternoon, often resort to these parks for health, recreation or pleasure, and the extent of their beneficial influence can hardly be estimated.

In addition to her public square already planted, West Chester, with a population of 3000 inhabitants, is supplied throughout with pure spring water, thrown up to the reservoir, in one corner of the square, and which is the highest ground in the Borough. The streets and public and private buildings are lighted with gas. It contains a new *Court House*, costing near \$60,000, with six majestic cast iron columns of the corinthian order, in front, with open space all round it, planted with trees; a *Bank*, of pure white marble, with pillars of the Doric order, a *Horticultural Hall*, costing \$6000, in the Norman style, the second only in the Union, built by a Horticultural Society for Horticultural purposes, a *Cabinet* of natural science, containing the best collections in the State, out of Philadelphia; a *Jail*, built within a few years, of substantial construction, and the first for solitary confinement, of any interior county in the State or country, and seven large buildings for public worship, including a large Catholic chapel just erecting. The site of the Borough is on elevated ground, nearly 500 feet above tide-water, and overlooking one of the most beautiful and best cultivated agricultural districts in the Union. We have already one Railroad connecting with the Columbia Railroad, and a GROWING ATTACHMENT to Philadelphia, now progressing to completion, in the shape of a *Direct* Railroad, which will bring us within twenty-six miles of it, and less than one hour apart, and which it is expected will be *reciprocated* by many of its citizens, and business men, adopting West Chester, as their permanent residence, so soon as it is completed. In addition to the above, West Chester is celebrated for the excellence of her schools. In addition to several small ones, it contains three large Boarding schools, all well filled and flourishing. That of A. Bolmar is widely and favorably known over the Union, many of our public men having been educated under his care, and his scholars coming, many of them, from the Southern States, Mexico, and the West Indies. His building is large and imposing, and in the general management of the school, system of thorough instruction, conveniences and comforts

in and out of doors for the students, its grounds well planted with fine evergreen and Deciduous trees, some of large size, and in its large and well kept garden, is acknowledged to be the best private establishment in the United States. There is attached to it a farm of over 100 acres of excellent land. The fine herd of Durham cows, and other superior stock, the Farm buildings, cow house, conveniences for boiling food for stock, and the neat and successful management of the Farm, shall be adverted to at another time.

We had intended only to speak, in this article, of the *Public Square* at West Chester, but these other matters have unintentionally leaked out, and as they are generally secrets known only to a few, we let them go forth, and are willing to compare notes with any other town in Pennsylvania of twice the size.

*There are 238 trees and shrubs in the Square, comprising about 160 distinct species.

The following account of the successful removal of large trees, and of a kind too, more than usually difficult to transplant, even when small, is extracted from a recent number of Hovey's Magazine. As it has been done, and at a comparatively small expense for trees "30 to 40 feet high," and with a variety generally deficient in much fibrous root, we consider the success, in this case, the most remarkable we have heard of in this country.

Dear Sir:—The accompanying shellbarks—well ripened; as you will find them—grew, this season, upon a tree which my brother and myself transplanted twenty-one months ago, i. e., in January, 1851. The tree was moved, at the same time with three others, a distance of two miles, by what is called the *frozen-ball* method of transplanting. It is now in a fine healthy condition, and, with the others,—all of which are over thirty feet, and one of them forty feet, in height,—serves at once for ornament and shade. Upon our new place, they produce a fine effect in taking off and relieving the inevitable rawness of a recent settlement.

Thinking that a simple statement of these facts might encourage others to do likewise, I have written these few lines. Knowing—as no one better does than you—the great difficulty of transplanting our hard-wooded forest trees, particularly the oak and several species of the hickory, you will concede that our experiment has been eminently successful. The expense of transplanting did not exceed twelve dollars per tree.

Do not regard this on my part as a piece of boasting, but simply as a word of encouragement to those who are compelled to locate themselves and their household gods upon a naked spot of earth. The statement, you perceive, is of what *has been* done, not what *may be* done. What has *actually* transpired, it seems to me, is worth a great deal more to your readers than speculations in regard to what is *possible to be done*!

Truly your friend,

GEORGE JAKUES.

Worcester, October 20th, 1852.

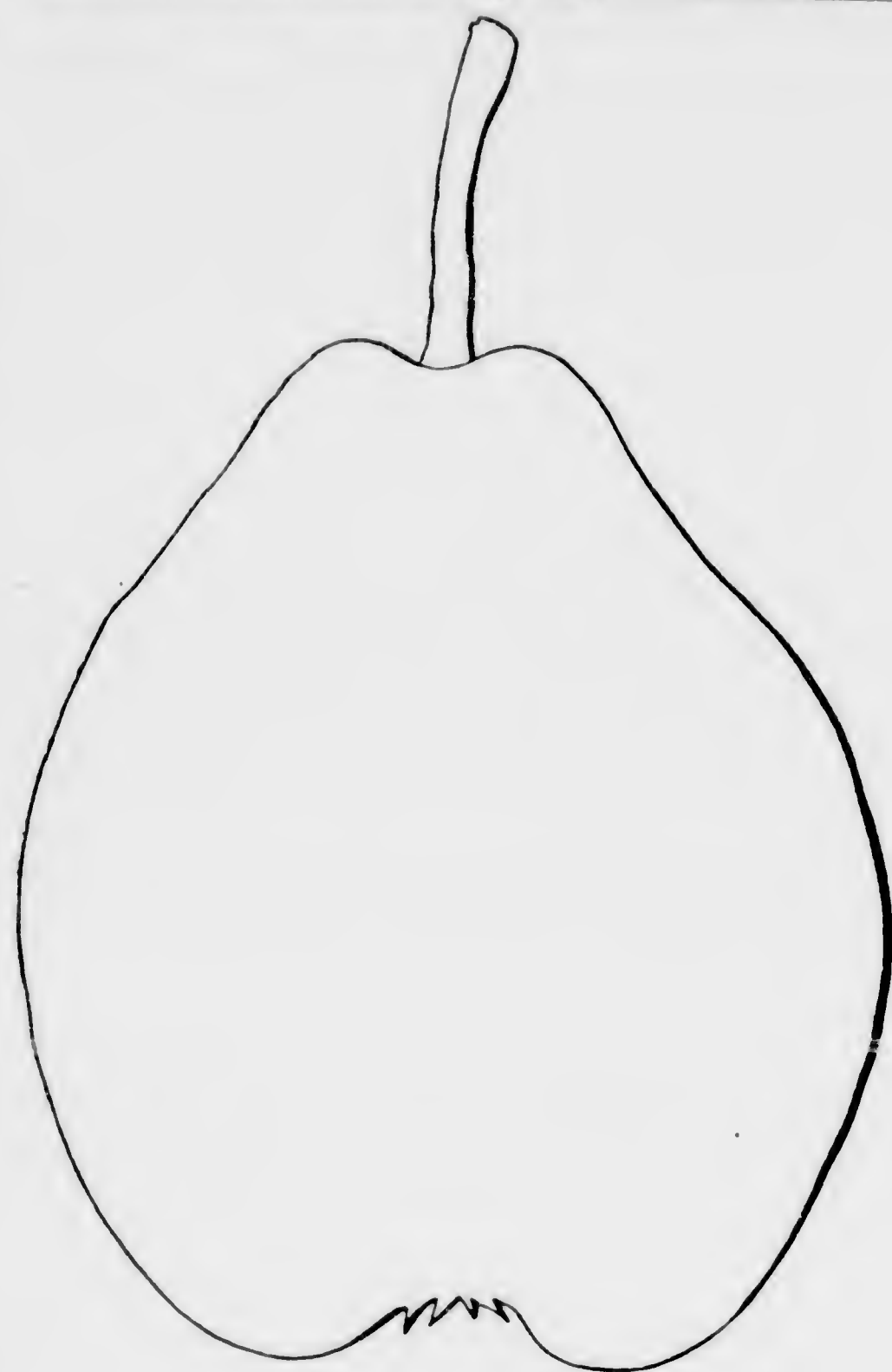


Fig. 1.

Fig. 1. Glout Moreceau. (Gloo. Morso:) Flemish variety, fruit rather large, varying form, but usually obtuse oval, and tapering towards the crown, surface green, becoming pale greenish yellow when ripe, stalk moderately stout, an inch or more long, and somewhat sunk in a small regular cavity; calyx large, usually with open divisions, set in a moderately deep basin. Flesh white, fine grained, and smooth in texture, buttery, very melting, with a rich sugary flavor without acid. Ripe in December.

We have fruited this variety this season, on Quince stock, and there can be no two opinions as to its being of the *very finest quality*. It makes a beautiful pyramid on that stock, is a very vigorous grower, and we have found an early and prolific bearer, and altogether one of the most desirable varieties. It is easily recognized by its pale, ash colored bark. It is said not to be so fine on Pear stock.

Fig. 2. Winter Nelis. This is a Flemish Pear, and was originated about twenty years since, by M. Nelis, of Mecklin; size medium, roundish obovate, often slightly pyriform, with a neck small and short, surface yellowish green, much russeted, stalk an inch and a quarter long, bent, cavity narrow, calyx, stiff, short basin, shallow. Flesh yellowish white, fine grained, buttery, very melting, rich, sweet or slightly vinous, perfumed, aromatic; in perfection in December, and keeps

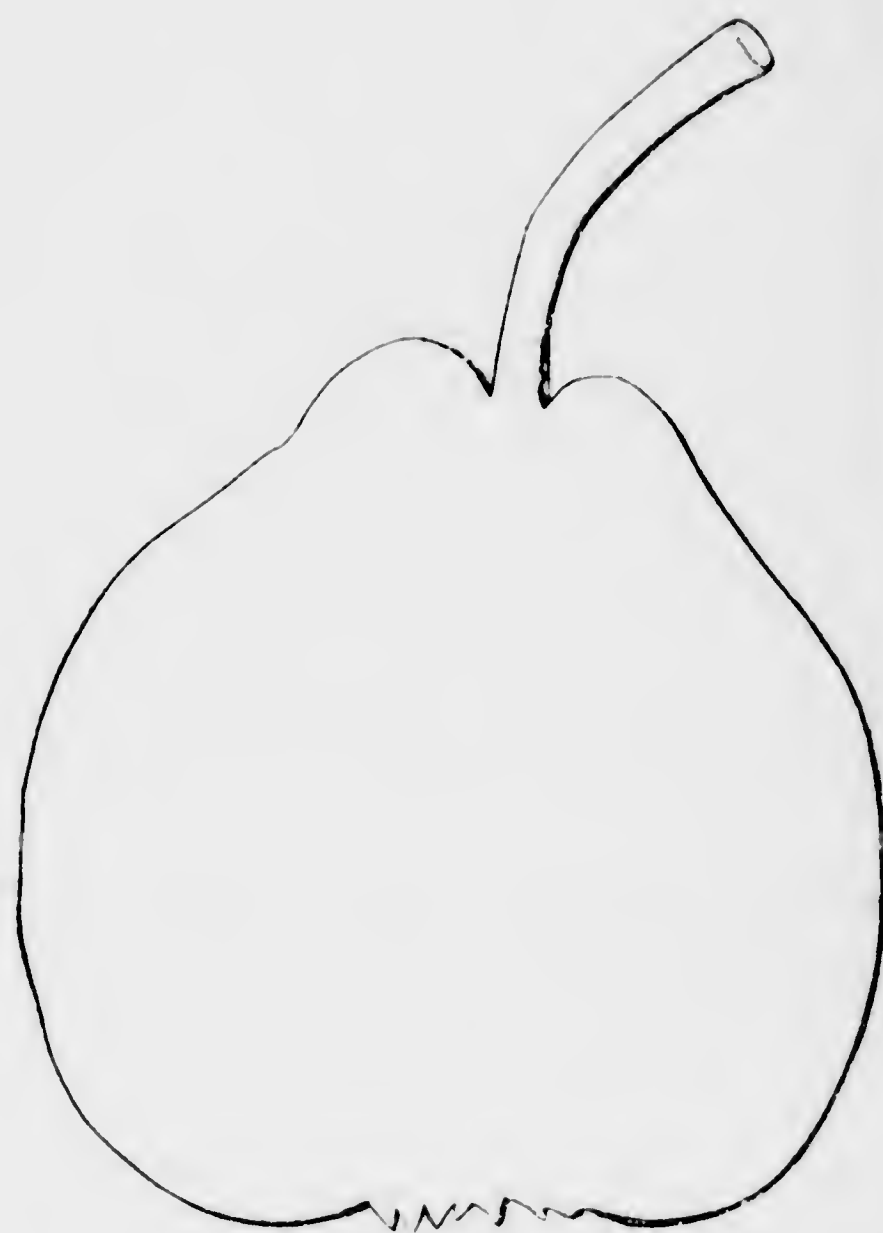


Fig. 2.

till the middle of January. This is also one of the very best of pears, and has no superior. It or the preceding might be preferred, according as the taste or slightly vinous or sugary flavor predominated. Downing says it occupies the same rank among winter Pears, as the Seckle among autumnal varieties. It will not do so well on Quince without double working, but when so treated produces finely. We had about a dozen Pears this season on a double worked tree, about five feet high, which were larger and finer specimens, than any we saw at the different exhibitions. The tree is of rather slender, straggling growth, with somewhat pendent branches.

We hope the meeting at Harrisburg on the 18th, to establish a State Pomological Society, will not be forgotten, and that there may be a full representation of Pomologists from different parts of the State. Pennsylvania contains, we believe, as fine seedling Fruits as any other State. These have been too long overlooked, and require the concerted action of a State Society, to bring properly before the public. The regular notice of the time and place of meeting was published in our last month's number.

In the account of the Bucks County Exhibition in last number, 1500 visitors should read 15,000.

Hawley Apple, Canada Red and Northern Spy. DISCUSSIONS AT POMOLOGICAL CONGRESS.

WATTS, of Rochester, N. Y. I would propose the Hawley Apple, for trial, and call on Mr. Barry for his opinion.

Mr. BARRY, of New York. It is very highly esteemed, and I think worthy to be placed on the list for trial. It is productive, the tree is a good grower, and the quality is very good, though perhaps not first-rate.

Mr. HOVEY, of Massachusetts. From the specimens I have seen, I should class it among the very best apples we have. It is tender and refreshing, with an agreeable mixture of acid and sweet.

Col. HODGE, of New York. I think very well of this apple, and have never heard any thing disparaging said in relation to it.

Mr. HOOKER, of New York. I have known it for some years, and there is but one opinion expressed in our vicinity, with regard to it. It is considered first-rate.

Mr. J. J. THOMAS, of New York. I have known this apple a great many years, growing on old and young trees, on light and heavy soils, and the fruit is uniformly good and fair.

The vote being taken on Mr. Watts' motion, it was decided that the Hawley apple be admitted in the list of those promising well.

Mr. WATTS, of Rochester, N. Y. I propose the *Canada Red*, which is the Massachusetts Nonsuch, for general cultivation.

Mr. J. J. THOMAS, of New York. It has been widely cultivated, and I think it almost worthy of it. It has proved good in Ohio, and in New York, but whether or not far south I am unable to say.

Mr. WATTS, of Rochester, N. Y. At Rochester it is considered one of our best Western growing apples, and is particularly fine as a desert fruit. (Mr. Watts here presented a painting of the apple beautifully colored.)

Mr. ROBERT PARSONS, of Long Island. On Long Island, we think it is one of the best we have.

Mr. BARRY, of New York. It has been tried a long while and is an excellent apple.

Mr. WALKER, of Massachusetts. All I have heard has been favorable to it. It is very excellent; but overbears itself.

Mr. GOODALE, of Maine. It is well known in our markets, and is almost uniformly spotted, and is the last fruit we should want there.

Mr. DOWNING, of New York. I am to do that this is the case through the State of Connecticut.

Mr. HOOKER, of New York. In Western New York three-fourths of the crop have been worthless, but under good cultivation it is excellent.

The motion was amended so as to read that it be recommended for general cultivation, in certain localities, and then unanimously adopted.

Mr. SAUL, of New York. I would suggest the Northern Spy as worthy of trial.

Col. HODGE, of New York. There is but one opinion in regard to that apple with us. We consider it one of the very best winter varieties. It has been said to be spotted, but with us it is not so. I esteem it so highly that for two or three years, I have been planting out large orchards of it.

Mr. MILLER. It has been fruited in Pennsylvania, and has become knurley.

Mr. WALKER, of Massachusetts. It has not proved in the neighborhood of Boston what we expected of it. When I first saw it I thought it the best apple I had ever eaten, but now I think it suited only to cer-

tain localities. I hold it in the highest estimation, but think it wants the warm generous soil of Western New York.

Mr. GOODALE, of Maine. My father has it, and it is pretty fair.

Dr. JONES, of Ohio. It has with us all the reputation given it in regard to quality, though it is not so great a bearer as I supposed it to be.

Mr. WATTS, of Rochester, N. Y. One day previous to my coming from home, I went ten miles from Rochester, where there were twenty-three trees growing. I found the trees full of fruit about half-grown. It generally bears well, and is a thrifty grower.—Those that do not grow on the ends of the limbs of the tree, or where the sun cannot get at them, are often inferior. About Rochester they are commencing to cultivate it very extensively, and orchards in the vicinity of Lockport, have been all grafted with this fruit. They have been known ten or fifteen years with us, and the price farmers receive in market for them, is two dollars and a half per bushel—and they will sell sometimes for five dollars—in the spring some sent to New York, brought nine dollars. The reputation in Western New York is high, and if the gentlemen saw it growing they would be perfectly satisfied with it.

It was voted that it be recommended for general cultivation in certain localities.



For the Farm Journal.

Carolina Buckthorn.

Rhamnus Carolinianus; unarmed; leaves oval oblong, obscurely serrate, glabrous; umbels axillary; flowers perfect, pentandrous, petals minute, embracing the very short stamens; styles united to the summit; stigmas three; fruit globose, three seeded.

Native of the Carolinas, Georgia, Florida, and west of the Mississippi. This beautiful little tree is found

to be quite hardy in Pennsylvania; and the elegance of its foliage and fruit render it a very desirable ornament for country residences. The beautiful gloss of the leaves is not exceeded by any other plant within my knowledge. It exhibits its fruit, which is near the size of a pea, in a red dress for a few weeks; during this time it is quite showy; it then changes to a beautiful glossy black, presenting a very rich appearance, which it frequently retains until late in the winter. Sometimes a flock of robins will attack the fruit late in the autumn, and devour it in a day or two. In the autumn of 1851, the fruit of the tree above represented was quickly eaten by those birds. I counted forty at one time thus engaged, and concluded their taste differed much from my own, as to my palate it is very nauseous. This tree grows from 15 to 30 feet high, and in favorable soil and climate somewhat larger. I obtained the above fourteen or fifteen years ago, at Bartram's Garden, on the Schuylkill near Philadelphia; it is now about fifteen feet high.

I have another species, the *Rhamnus Catharticus*, which, though less beautiful, is much esteemed north and east of us for making hedges. It is also medicinal, and is used in the arts.

West Chester.

JOSHUA HOOPES.

[The annexed engraving is from a daguerreotype, which we had taken, with the view of bringing a very beautiful tree more into notice. We have often admired it, standing in the arboretum of our friend Joshua Hoopes, with its branches bending with the weight of fruit. This arboretum, by the way, is well worth visiting, and contains in little more than half an acre, nearly 200 varieties of trees and shrubs, which have been collected by him and planted within the last twenty years. Many of them are rare here, and the collection is one of much interest to the Botanist.]

Cure for Ros.-Bugs.

A subscriber wishes to know if any one can suggest a method of preventing the yearly incursions of the rose-bug, and having heard considerable complaint among our neighbors at having their cucumbers, grapes and other fruit destroyed by these insects, I will suggest a remedy.—Plant in the centre of your garden a few damask rose-bushes, and they will never light on anything else. We have a large garden with almost every kind of fruit, vines, shrubbery and flowers, with several kinds of roses, and in the centre we have four bunches of damask rose-bushes, and I never saw in the whole garden a rose-bug on anything but the damask rose. When they are in blossom, I go into the garden once a day with a pan of hot water, and shake the bugs from these roses into the water, and get about a pint at one time; this I practice for a few days, and then they will disappear.—[*Boston Cultivator*.]

Keeping Apples.

Mr. Pell, of Ulster county, the celebrated exporter of apples to Europe, recommends that apples, after

having been carefully hand picked in baskets, should be laid on a floor, by hand, without pouring from the baskets, until they are fifteen to eighteen inches deep, and left to dry and season three weeks; when again carefully packed in clean barrels, they may be kept, without rotting, any reasonable length of time, and safely sent to any part of Europe or the East Indies. The plan of drying and seasoning in the air, before barreling, prevailed generally some years ago, although, now-a-days, it is mostly discontinued, and thought useless. We are disposed to think well of this process when it becomes important to keep apples safely till next spring to send to foreign countries, for we have always observed that on opening a barrel a few days after being put up, in ever so dry weather, that the moisture often stands in drops over whole surfaces, and although loose barrels will allow it mostly to evaporate, yet where they come in contact the two surfaces retain it and cause rot.

The carrying of apples in a common wagon, either before or after barreling, is injurious—they should be moved on springs or sleds. The least abrasion of the skin, or crushing of the cell of the pulp containing the juice, allows fermentation and decomposition, and the consequent decay of the whole mass.

Apples will not freeze until at a temperature of from 5 to 10 degrees below the freezing point of water, and it is beneficial to keep them as cool as possible, even down to 30 degrees. Apples inclosed in a water-tight cask, may be left in a cold loft all winter without further care, and will be sound in the spring and perfectly fresh.—[*Genesee Farmer*.]

State Herd Book.

With the view of facilitating the formation of a State Herd Book, as suggested by one of the stock committees at the late Fair, and to accommodate Farmers and Breeders, we are willing to devote a page of the Farm Journal, at the close of the reading-matter in each number, to registering Pedigrees at the price of 50 cents each.

Every number of the Journal will hereafter contain its own index, so that they can be readily referred to, at each separate issue, and when the volume is closed, an index of stock will also accompany. As our Journal will from time to time be illustrated with portraits of the best animals of the State, the whole will we think, when bound up, make just such a Herd Book as is wanted, and probably much cheaper, and quite as complete as any plan that can be proposed. If the owners of fine animals approve this plan, and send us their pedigrees, we shall commence the publication in our next number. The sooner it is commenced the better. At first, we may find it necessary to make up an extra sheet of a few pages, but after being once fairly posted up, a page or two of the Journal monthly, we think will be sufficient. In England, we understand that a Herd Book for Devons' has also been published.

Subscribers to Farm Journal in Philadelphia, in addition to W. B. Zieber, South 3rd st., can be supplied with the work by A. M. Spangler, at C. B. Rogers' Seed Store, 29 Market st., who will also receive subscriptions.

PENNSYLVANIA HORTICULTURAL SOCIETY.—The proceedings of the Pennsylvania Horticultural Society were received just as we were locking up the form for the press. We had withheld space till the very latest moment, but owing to their length and the late hour at which they were received, we are compelled to defer their publication until our next number.

We call attention to the advertisement of Adrian Cornell, of pure Suffolk pigs. This is a valuable breed, of good form, and very easy feeding. The stock of A. Cornell has been obtained from the best sources, and we are assured is well worthy of attention of those wishing to improve their breeds.

Original Communications.

For the Farm Journal.

Noctua Agrotis Clandestina. Cut-worm.



This insect belongs to an old family (*Noctuidæ*) of nocturnal Lepidoptera or night-flying moths; but more recently, it and a number of others of similar character, habits and appearance, have been grouped together and named Agrotidians (*Agrotididæ*) or rustic dart moths: perhaps, from being found principally in the fields, and some of them manifesting a darting motion in their flight. I am persuaded the moth is very little known as being identified with the larva or caterpillar which produces it, and whose history and extermination is the chief concern of the agriculturalist and the vegetable grower. The larva is better known as the "cut-worm" so destructive to all young succulent plants, and the very terror of the kitchen gardener. The illustration at the head of this article represents the moth of the corn cut-worm. It does not confine itself to any particular vegetable however: all that are succulent being alike relished by this indiscriminate devourer; but if left to its own choice, it seems to prefer the young corn when it is only a few inches high.

They sometimes make their appearance in great numbers and at rather irregular periods, and together with others belonging to the same group, commit great ravages to the young corn, beans, cabbages, &c. They usually bury themselves in the soil three or four inches from the root of the plant during the day, and come up at night, or in cloudy days, and cut the tender vegetables off near the surface of the soil, and after having devoured a portion, if not all of it, they return again to their former hiding place as

soon as daylight or the sun appears. It is said, that in sixty bushels of mould taken from a field where the larva of several species (allied to the one we are considering) prevailed, there were twenty-three bushels of the caterpillars.*

It appears that when first disclosed from the egg, they subsist on the various grasses—and on the approach of cold frosty weather they go down into the ground and remain inactive, and appear in the spring again about half grown, which is the time they exhibit their destructive qualities. Dr. Melsheimer, says "the moths as well as the larva" of this species, "vary much in the depth of their color, from a pale ash to an obscure brown. The ordinary spots of the upper wings of the moth are always connected by a blackish line; where the color is of the deepest shade these spots are scarcely visible; but when it is lighter they are very obvious."†

This moth is very abundant in Pennsylvania as well as in the Eastern States, from the beginning of June until the middle of September, and sometimes when the weather is warm they may be found near the end of the month, and even later. The transformation of the pupa occurs usually in July, and the fore-part of September, according to the season. The forewings are generally of a dark ash color, with faint traces of wavy transverse bands; the hind wings are a dirty whitish color, darkened towards the margin. It expands from one inch and a half to one inch and three-quarters. In a state of rest the wings overlap each other flat upon the back. During the day it lies hid in chinks and crevices of fences, walls or barks of trees, and appears at night with hosts of others, and is attracted by burning lamps, candles or any other luminous body. The caterpillar is usually smooth, naked, and of a dark color, of a cylindrical form, tapering a little at each end, and is provided with sixteen legs. Among the various remedies recommended for their destruction or to prevent their ravages, is soaking the various kinds of seeds in copperas water, or rolling them in lime or ashes; but as the cut-worm does not attack the seeds, this can have but little effect, except perhaps to accelerate the germination and growth of the plant. Fall ploughing the land intended to be planted in corn, whereby the cut worms are thrown up and devoured by birds, or exposed to the cold, seems also of doubtful utility, although I have found many of them in places of exposure, dead in the spring. The only certain mode is to go to work, where it is known they have commenced cutting the young corn or vegetables and dig them up and destroy them by hand, a description of which is given by Mr. Asahel Foote in the "Albany Cultivator" and 17th vol. of the "New England Farmer." S. S. R.

*Koller's Treatise, P. 94, &c.

†Harris' Treatise, P. 326.

MR. EDITOR:—

For the Farm Journal.

A fact of small importance to some, but perhaps of advantage to others of your readers, came under my observation a few days since. While husking out my corn, one of my hands, who wished to get a few ears of the eight rowed kind for seed, ascertained by finding two ears on one stalk, that one of them was of the eight rowed, and the other of the twelve rowed variety; and by farther observation I found that out of thirty stalks, each bearing two good full grown ears, thirteen of them were of a mixture, the lower ear being invariably the fullest, containing generally twelve rows and the upper one eight rows. This corn was formerly of the common yellow eight rowed variety, but now after eight years cultivation on the farm, it has run into ears of ten, twelve and fourteen rows. There are many farmers in this section, who think that the eight row corn is harder and of better quality, and with the idea that "like begets like," are careful to select none but that kind for planting; but the above fact renders it altogether superfluous. As to its being of better quality, it is my opinion that it has no advantage over larger ears of the same kind of corn.

C. M.

Wyoming Valley, Pa. 1852.

[Selected from an English work, for the "Farm Journal," by John M. Harlan, Ercildoun, Chester County, Pa.]

Case of a broken leg, that had been amputated by Professor John Tindall.

"In 1828, I was sent for to see a three year old heifer, that had broken her leg above the fetlock joint. This case had been attended by another person for ten days previously, who amputated the leg. When I attended, the wound was in a gangrenous state, and I applied spirits of wine, camphor, and the tincture of myrrh, with poultices made of wheaten flour, yeast and honey, to the stump; and in the course of twelve days, the wound was brought to a good consistence. The only thing to be considered now was, how the animal was to walk and graze. I therefore got an artificial leg made of cork, and a leathern boot, to lace above the carvil joint, to keep the leg in a proper state, and I soon had the satisfaction of seeing my patient walk and feed with little inconvenience. I give this case to show the necessity, when an animal has fractured a limb, to get a skilfull person to set it, and it will in most cases, unite in about thirty days."

J. M. H.

East Fallowfield, Chester co., Pa.

We have received from our friend William Elliot a copy of the Brownsville Free Press, containing the account of the first annual Agricultural and Horticultural Exhibition of the Jefferson township, Fayette county Fair. It says:—

The Jefferson Township, Fayette County, Agricultural Society, held their first annual Exhibition at Brownsville, on the 26th and 27th of October. The exhibition of the different kinds of stock was very fine, and surpassed the most sanguine expectations of the Society, as to number and quality. The display made in the Horticultural department showed that we are becoming acquainted with the importance of this branch of Domestic Industry.

The display made in the Domestic Manufacturing department, showed well for the manufacturing Boroughs of Brownsville and Bridgeport—owing to the day being unfavorable, it was not so extensive as it otherwise would have been, had the day been more propitious; nevertheless great credit is due to those presenting articles for exhibition, and more particularly so for the taste, skill and industry of mothers, wives, and daughters of the surrounding country.

We observe by the list of premiums, that the managers of this enterprising Society have endeavored to enlist the *whole* feeling and interest of their community, by taking a wide swath and embracing a large number of articles not usually entered on such occasions. In this they have done right, and the great success of this their first exhibition is no doubt attributable to such a course. In addition to the customary display of articles, we find premiums have been awarded for Ladies' Riding Horses, and light Harness horses, Maltese Jacks, Merino, Saxony, French Merino, and other Merino sheep, specimens of several of the improved breeds of Fowls, articles of wool and cotton manufacture, quilts, coverlets, carpets, sewing silk paintings, Daguerreotypes, bee-hives and bees, wrapping-paper, drugs, perfumery, penmanship, &c.; "also, a large variety of agricultural implements, grain drills, grain reapers, clover and timothy sowers cutting boxes, carriages, buggys, &c., and an extensive list of our most approved varieties of Fruits. We observe also, a premium of \$100 to R. Buffington, a small boy, for a steamboat, and a "premium to Mr. Miller for vegetable eggs." These last eclipse any thing we have been able to bring out, as yet, at our Chester County Horticultural or Industrial Exhibitions. There perhaps will be some excuse for us, in the first article, as our nearest water, the Brandywine creek, is two miles off, and so shallow as to make navigation decidedly unsafe; but what are "vegetable eggs?" Have our friends out there really got to growing eggs on bushes for a field crop? if so, the fowls may well exclaim—"their occupation's gone;" or are they what we call here, egg plants, that are intended?

We congratulate the Society on their success thus far, and hope the influence of their effort will stimulate other counties around them in the same cause.

CARROTS FOR HORSES.—The stable keepers are beginning to find that these vegetables form a cheap and nutritious food to mix with grain for their horses. It is better to give a working horse a peck of carrots and four quarts of oats or corn meal a day, than to give him six quarts of meal.

Showing at one view when Forty Weeks will expire from any day throughout the year, saving much trouble to all persons for whom it has been calculated.

A TABLE FOR THE USE OF THE CATTLE KEEPER.

NAME OF THE COW.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10	10	10	10	10
11	11	11	11	11	11	11	11	11	11	11	11	11
12	12	12	12	12	12	12	12	12	12	12	12	12
13	13	13	13	13	13	13	13	13	13	13	13	13
14	14	14	14	14	14	14	14	14	14	14	14	14
15	15	15	15	15	15	15	15	15	15	15	15	15
16	16	16	16	16	16	16	16	16	16	16	16	16
17	17	17	17	17	17	17	17	17	17	17	17	17
18	18	18	18	18	18	18	18	18	18	18	18	18
19	19	19	19	19	19	19	19	19	19	19	19	19
20	20	20	20	20	20	20	20	20	20	20	20	20
21	21	21	21	21	21	21	21	21	21	21	21	21
22	22	22	22	22	22	22	22	22	22	22	22	22
23	23	23	23	23	23	23	23	23	23	23	23	23
24	24	24	24	24	24	24	24	24	24	24	24	24
25	25	25	25	25	25	25	25	25	25	25	25	25
26	26	26	26	26	26	26	26	26	26	26	26	26
27	27	27	27	27	27	27	27	27	27	27	27	27
28	28	28	28	28	28	28	28	28	28	28	28	28
29	29	29	29	29	29	29	29	29	29	29	29	29
30	30	30	30	30	30	30	30	30	30	30	30	30
31	31	31	31	31	31	31	31	31	31	31	31	31

Selected from an English work, for the "Farm Journal," by John M. Harlan, Ercildoun, Chester county, Pa.

Fattening Swine—Commence Early.

By the last census it appears there were over thirty millions of swine in the United States, and that they out-numbered the sheep by about ten millions. This shows the value of this product, proving pork an important item of domestic consumption. It is, in the country especially, the stand-by when other meats fail, and will ever retain its place, where long-keeping and hearty, strength sustaining food is desired.

We have before urged the importance of an early commencement of the process of fattening, and now repeat that it is advisable, for the reason that articles of food can be made use of which would otherwise be wasted, and that mild weather is much more favorable to taking on flesh than cold.

At this season, most farmers have quantities of autumn apples, summer squashes, early potatoes, &c., which would perish or deteriorate sadly by keeping, but are now of considerable value—well worth saving, at least—as food for swine. Boiled or steamed and mixed with meal, they are well relished, and for a commencement in fattening, answer as well as can be desired. Where apples and potatoes are both used, when boiled in a large kettle, it is a good plan to put the apples in first—three or four bushels of apples to one of potatoes, and cover with the latter—well washed, of course. Then fill with water, and when sufficiently cooked, add enough meal to make a thick pudding-like mass. The meal will be cooked by thus mixing while hot. Some farmers grind up oats and peas, oats and corn, oats and barley, or shrunken wheat for this purpose.

An Orleans county farmer informs us of a mode of fattening which he has practiced with much success, not differing materially from that above recommended. He commences early, having the pen open into a small yard adjoining, that the hogs may have exercise, and get at the ground at pleasure. He begins feeding boiled apples, pumpkins, carrots, potatoes, &c., mixing the same with some light mill-feed, which he is careful to measure so that he may gradually increase its richness to the last, when he feeds nothing but corn meal pudding. He is also particular to let the mush stand a half day or so, until the saccharine fermentation commences—which is undoubtedly the most proper stage for feeding. He never fails in making the first quality of pork, and a good deal of it.

We remarked that mild weather was most favorable for fattening. Food is the fuel for keeping up animal heat, and the less need of expenditure in this respect, the more rapidly will flesh be accumulated. Their comfort should be studied as a matter of economy, for a discontented, restive animal, however much he may consume, will never fatten rapidly. Their sleeping places should be dry and well littered,—and well ventilated, for pure air is of importance to everything that breathes it.

As to the amount of food to be given daily, we think it important to supply all fattening animals with just as much as they will consume without wasting, either by leaving, or by not fully digesting. The *Boston Cultivator* in remarking upon this subject, illustrates it as follows: "A certain amount of food is daily required by the animal to support life, or supply the natural waste of the body—for the process of life is one of consumption and decomposition. The accumulation of fat and extra flesh is only a deposit of superfluous nutriment, which not being required for the system at one time, is laid by for future emergencies. Now, if no more food is given daily than is sufficient to supply the natural waste, no surplus flesh or fat can be formed. If, for instance, a farmer has

ten bushels of meal to be fed to each animal, and it should be fed in so small quantities that it barely supplies the natural waste, the whole of the food would be consumed without the animal gaining a single pound in weight. But if the time of feeding had been shortened one-half, and the same amount of food had been eaten, the animals would have been able to lay by a surplus equal to the amount which half the food was capable of producing."

The same authority advises feeding Indian corn before it is fully hardened, as it is then more readily and fully digested, and both corn and cob are eaten, as well as the stalks if given to swine while yet green. The plant in this stage contains much sugar, and this is a most concentrated form of nutriment.

To conclude, we would say, commence early, use cooked food—increasing the richness thereof as the process goes on, feed regularly and fully, attend to the comfort of your porkers, and do not forget the manure heap, and no doubt large profits will result from this branch of farming economy.—[*Ohio Farmer*.]

Guano on Potatoes.

Last spring I planted four acres of potatoes on a two year old sod; the soil was a very light gravelly loam, well calculated to raise *sound* potatoes, but as it had been hard run, and never manured, it could not be expected to produce a large crop. I plowed the land deep and well, as early as the weather would permit, letting it lie till the time of planting—May 10th. It was then dragged, and on two acres 600 lbs. of Peruvian guano were sown broadcast. The land was then furrowed out in rows about three feet and potatoes planted in the rows, from twelve to fourteen inches between the sets. On the remaining two acres no guano, or manure of any kind, was applied, though treated exactly alike in every other respect.

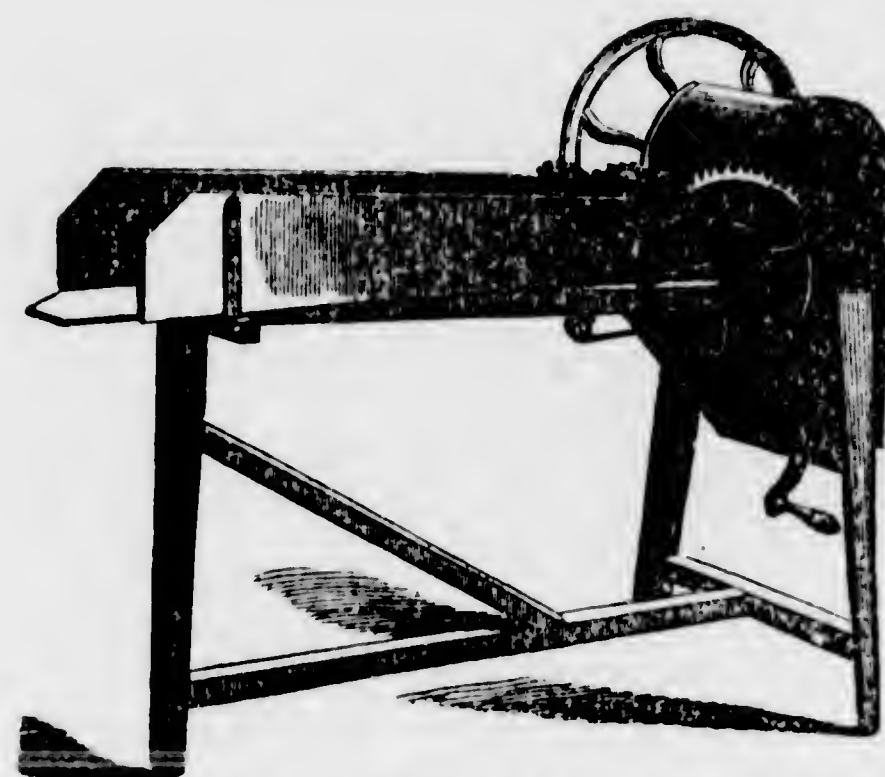
As soon as the plants were up there was a decided difference visible. The guanoed ones having a richer, darker hue, which they maintained throughout the summer. In the fall, when the unguanoed potatoes were quite ripe and the vines dead, the guanoed ones were growing luxuriantly, the vines covering the whole space between the rows.

The potatoes were dug the last week in October, and accurately measured. On the unguanoed two acres, there was 238 bushels, and on the two acres guanoed, 410 bushels, making a difference in favor of the guano of 86 bu. per acre. All the potatoes are perfectly sound and good, but the guanoed ones are much the largest, with scarcely a small one among them. The guano cost in New York two and a half cents per pound; freight, breaking the lumps, sifting, and sowing it, would make its cost on the land three cents per pound, or \$9 per acre. The 86 extra bushels of potatoes will more than pay for the guano, &c., and leave a good profit from the investment.

As regards the best mode of application, I may state that in another field this year I had an acre of potatoes, part of which were guanoed, as on the other two acres, by sowing broadcast, planting the potatoes in hills. On part of the acre the guano was applied *in the hill*, placing the guano immediately over the potatoes, separating them with a little soil, otherwise it would injure the sett. The potatoes thus treated were *much better* than where the guano was sown broadcast. Four rows left unguanoed were not more than half as good as where guano was applied.

I consider guano a most powerful and valuable ma-

nure, though whether it will pay as well to apply it to wheat, corn, or other grain crops, as it has in this instance to potatoes, I cannot say. I have sown some on wheat this fall and can already see how far it extended, the difference being very perceptible.—H. C. Ives.—Rochester, N. Y., 1852.—[*Genesee Farmer*.]

**Webb's Patent Hay and Straw Cutter.**

The above is an engraving of a new and useful improvement in Straw Cutters, patented in 1850, and not as yet widely introduced. We consider it, for several reasons, the best machine for this purpose now in the market. It combines *simplicity* of arrangement with great efficiency, cutting two to three bushels in a minute, with hand power. The length of cut with this machine is about three-fourths of an inch, having two knives; those with three knives the cut is half an inch. Its construction is simply on the shear principle, a straight knife cutting on a curved edge, with adjusting and set screws, to regulate the approach of the knives to the curved edge. There is no intricate rigging to break or get out of order, and the whole machine is so simple, and at the same time efficient, as to warrant its being recommended with confidence. It is self feeding, and the price is \$16 for the two knives, and \$20 for the three. Several alterations have been made in the original machine, making it much more perfect and easily managed. Persons who purchased any of the first manufacture in eastern Pennsylvania, are requested to return them, and they will be exchanged for the improved pattern at Paschall Morris & Co.'s Agricultural Warehouse, West Chester, who can furnish them at the above prices retail, and at reduced rates to dealers.

WORK FOR THE MONTH.**Farm.**

Stock require particular attention. Give sufficient shelter, some variety in their food, free and convenient access to water, and have a lump of rock salt in the yard for them to go to, which is much better and more economical than salting at stated times. Cut up straw, hay and corn fodder; the saving by this will more than pay for a machine, in one winter. Keep cows at night in warm, well ventilated stables, well furnished with litter, and turn out in fine weather. Use the cattle card daily, particularly on heifers and young stock; feed once a day, at least, with roots, cabbages, &c., and a little meal; milk before feeding, to avoid

taste of turnips, &c., in milk and butter; accustom calves to the halter, by being regularly tied up at night in stalls; give extra food to working oxen; have corn ground in cob for feeding; attend to manure in yard as directed last month; protect all tools and vehicles from weather; haul lime, ashes, and such other fertilizers as may be wanted the coming season. Sheep should have good shedding, and be fed, besides good hay, with oats daily, and also roots, sufficient to keep them in good thriving condition. There is no gain at lambing time from sheep poorly kept through winter; they should also have access to water and salt at their pleasure. At leisure times, and in wet weather, make plain gates to substitute for bars all over the farm; there is great economy in this. Give attention to poultry. Let them have a warm house to go to, with some refuse meat, grain, sand and ashes always at hand. A few well kept will pay better than a large number running at large and uncared for.

Fruit Orchard.

But little is to be said, further than directions for last month, under this head. Remove all long grass and rubbish from trees, which attract mice. Bank up earth as before recommended. Arrange plan of orchard and fruit garden for spring planting; select at this leisure season, from fruit books and other sources, what varieties will probably be wanted; provide fencing materials, and have them ready for early use; cut down worn-out and decayed apple trees; provide stakes and tallies for trees; plant the orchard on paper in winter, at leisure, and thus expedite business in spring; spread lime over old orchards; moderate pruning may be attended to in this month; dig in Guano or short manure, to promote vigorous growth.

Vegetable Garden.

Attend to directions of last month; keep a close watch on frames, so as not to force into growth or injure by exposure; attend to composts, and procure materials for forcing beds in spring; repair sash, and make mats of straw for covering in cold nights; provide a full supply of bean poles, pea sticks, &c.; procure what gardening tools may be wanted, and anticipate the working season.

Flower Garden.

If the hints given out the previous month have been attended to, there will be little to do this month in the flower garden. Protection should be given at once to all tender roses and shrubs requiring it. Plants in windows should be carefully watched, and avoid too frequent watering. A good watering when necessary, is much better than constant wetting. That pest the Green Fly, can be kept under by occasionally syringing or immersing in tobacco water, made by steeping tobacco stems in water for twenty four hours.

Orange and Lemon trees in cellar, should have fresh air admitted when weather is open; water only

when dry. Plants in cold frame should have air every fine day. They are very liable to be injured by excess of moisture.

OYSTER SHELLS FOR FRUIT TREES.—A correspondent writes to the Germantown (Pa.) Telegraph, as follows:

One of the most effectual applications I have ever made to fruit trees in an old and barren situation, is a compost in which finely broken oyster shells were the principal ingredient. The shells have generally a large percentage of saline matter attaching to them, in a fresh state, with some animal matter and much lime. By breaking them and mixing them with wood ashes, and spreading it thickly around old trees, and almost immediate and decided improvement will take place.

YOUNG STOCK.—These should not be left entirely without grain during winter. The raw materials for the formation of muscles, bones, &c., are not contained in sufficient quantities in the long provender used for winter feeding.—[Working Farmer.]

Review of the Markets.

PHILADELPHIA, December 23, 1852.

FRUIT.—There is a good demand for foreign fruit, and store sales are making to a fair extent at full rates. Apples and peaches are in demand, and sell freely at previous quotations. **FLOUR AND MEAL.**—The Africa's advices imparted a better feeling to the market for Flour, and holders have realized an advance of 12½a18½c per bbl. since the close of last week; some 11,000a12,000 bbls. having been taken by shippers and speculators at \$5 12½a5 18½, and since at \$2 25a5 31½ for mixed and straight brands, including some selected lots at \$5 37½; fancy brands at \$5 56½a5 62½; and extra at \$5 62½a5 75 per bbl. Rye Flour is steady, with further small sales at \$4 25 per bbl. Corn Meal is also stationary, and 500a600 bbls Penn'a Meal sold at \$3 50 per bbl. **GRAIN.**—Receipts continue moderate, and with an active demand for Wheat, principally for milling, prices are 113a114c per bu. better; about 20,000 bu. have been taken at 113a117c for fair to prime Penn'a and Southern reds, including some small lots of mixed at 117c, and pure white at 120c; the latter is scarce, and generally held higher. Rye is in request, with small receipts; and sales of Penn'a at 85a86c. Corn in steady demand, and the receipts, some 22,000a25,000 bu. found buyers at 64c for good Southern yellow, and 60c for white, mostly at the former rate. Oats continue dull, with limited arrivals, and sales of Southern at 40a42c, as in quality, and Penn'a at 44c. Wool is active, and further large sales have been made at improved rates. Among the transactions we are advised of is a sale of 260,000 lbs fine fleece on private terms, said to be at a higher rate than any previous sale in the market.

CATTLE MARKET.—The offerings at Washington Drove Yard comprised 1400 head of Beef Cattle, 349 Cows and Calves, 900 Hogs, and 5000 Sheep and Lambs. Prices. The demand for Beef Cattle is limited, but prices have undergone no change. Sales were made at \$6 to \$8 50 per 100 lbs. Good milch Cows ranged from \$18 to \$36, and dry Cows \$8 to \$14. In Hogs the sales were larger than those of the preceeding week, but prices of live hogs are unchanged. Killed hogs are arriving more freely. Sales at \$7 50 a \$7 75. Prices of Sheep are steady at \$1 50 to \$3 50, and Lambs at \$1 50 to \$4 50 each, as in quality.

CULTURE OF CRANBERRY VINES.

The variety cultivated mostly in England are hardy and prolific.

They can be raised on upland on rather moist loam—but do the best on low, damp or moist Meadow Land, with a little sand put around the plant.

They may be planted out 1½ to 2 feet apart each way.

Two feet apart, it will take 10,000 plants to the acre; if on low ground it should be pared, plowed, or burnt over to take out the grass or weeds, and cultivated for one or two years, until they cover the ground. The yield after that is from 150 to 250 bushels per acre. They are usually gathered with a Cranberry Rake, to be found in any Agricultural Store.

It is not necessary to flow Meadows in order to make them productive.

PRICES.—Under 500, fifty cents per 100; under 5,000, forty cents per 100; over 10,000, thirty cents per 100. For sale by

F. TROWBRIDGE,
New Haven, Conn.

Jan. 1853.

SUFFOLK PIGS FOR SALE.

THE Subscriber has for sale a few pairs of Suffolk pigs, warranted pure, 12 weeks old, from his premium Boar Lord Rodnar the 2d, and his fine sows Lady Suffolk and White pink. The sire and dams of the above pigs, were bred by L. G. Morris, of Mount Fordham, West Chester county, New York, from his imported boar Lord Rodnar. For further information, address

ADRIAN CORNELL,
Newtown, Bucks co. Pa.

Jan. 1853.

CHOICE POULTRY FOR SALE,

COMPRISING the following varieties, viz:—

Cochin China and Canton Fowls; Buff, Brown, Black, and White Shanghaes; Chittagongs, or Gray Shanghaes; also Sumatra Games.

The subscriber offers for sale Domestic Poultry of the above varieties, warranted true to their name, and purely bred—equal in every respect to any stock in the country. Orders for the same, addressed to the subscriber, will receive prompt attention.

CHARLES SAMPSON,
West Roxbury, Mass.

Jan. 1853. 3m]

J. & D. FELLEBAUM.

Manufacturers of all kinds of Steam Engines and Boilers, Slide and Hand Lathes, Mill and Press Screws of all sizes, &c. West Chestnut st., Lancaster, Pa.

We also furnish castings of the best materials, and at the most reasonable prices. Having had fifteen years practical experience in the manufacture of various kinds of machinery and iron work, we are able to warrant our work to give satisfaction to all who may favor us with their patronage. [June, 1852.]

ALDERNEY AND IMPROVED SHORT HORN CATTLE.

THREE thorough bred Alderney BULLS, from nine to eleven months old, raised from the choicest imported stock. Also, two thorough bred young Short Horn Bulls, ten months old, raised on the farm of T. P. Remington, near Philadelphia, and for sale by AARON CLEMENT, Agent for the purchase and sale of improved stock, Cedar street, above ninth street, Philadelphia. February 2d, 1852.

AGRICULTURAL WAREHOUSE AND SEED STORE.

The subscribers, in addition to their extensive Nursery and Green-House establishments, have established an Agricultural Warehouse and Seed Store, near the Horticultural Hall, West Chester, and are prepared to fill orders by wholesale and retail, of all kinds of improved Agricultural and Horticultural implements, vegetable and flower seeds, &c. Country storekeepers supplied with any of the following, with reasonable discount to sell again:—

Garden, Field and Flower Seeds; Horse Powers and Threshers; Wheat Drills and Seed Planters; Ploughs, Harrows and Cultivators; Hay and Straw Cutters; Grain Fan, and Corn Shellers; Vegetable, or Root Cutters; Hand Grain Mills, Clover Shellers, Horse Rakes, Churns of various patterns, Grindstones and Improved Hangings; Hay, Straw, and Manure Forks; Ox Yokes and Bows; Patent Bow Pins, Ox Trace and Log and Cow Chains; Cross-cut and other Saws; Spades, Shovels, Hoes and Rakes; Ox Muzzles and Bull Rings; Post Diggers and Crow Bars; Wheel Barrows; Grain Cradles; Scythes and Scythestones; Grubbing Hoes and Picks; Post Augers, Drawing Knives, Axes, Broad Axes and Hatchets; Grain Bags; Grain Measures; Garden Trowels and Weeding Forks; Cast Iron Chairs and Settees; do. Hat and Umbrella Stands; Garden Watering Pots; Hyacinth and Bulb Glasses; Pruning and Budding Knives; Wire Flower Trainers; do. Stands, Bee Hives, Pruning Saws and Chisels; Grass and Grain Sickles; Rose Shears and Twig Cutters; Flower Scissors; Butter Prints, Bowls and Ladels; Folding Ladders; Screw Wrenches, Pincers and Gimblets; Rat and Mole Traps; Cattle Cards and Horse Brushes; Curry Combs; Horse Lancets, Ox Knobs; Nest Eggs; Hoe and Fork Handles; Hay and Corn Knives; Garden Reels; Tree Scrapers; Cow Bells; Family Press; Pick Nic Boxes; Potato Diggers and Pullers; Whiffle Trees; Caterpillar Brushes; Fruit Pickers; Border Knives; Guano; Plaster; Poudrette; Bonedust; Lime, &c.

PASCHALL MORRIS & Co.,
Nursery, Seedsmen and Florists,
West Chester, Pa.

Orders by mail promptly attended to.
SUPER PHOSPHATE OF LIME.

Prepared under the supervision of Professor Mapes for sale by the ton or smaller quantity, at the Agricultural Warehouse and Seed Store, West Chester, Pa. Also, No. 1, Peruvian Guano.

PASCHALL MORRIS, & Co.
10,000 PEACH TREES.

Also fine Dwarf Pears, well branched, many of them having fruited the present season; also Evergreen and Deciduous Trees and Shrubbery in great variety.

Nurserymen and Dealers supplied with Black Spruce, American Arbor Vitae, Balm of Gilead, White Spruce, Hemlock, from 4 to 12 inches in height, at \$30 per 1000, well packed in crates, and delivered in Philadelphia. Also, Sugar Maple, White Ash, Birch, American Larch and Elm, from 18 inches to 4 feet, of handsome shape, and delivered in Philadelphia in good condition at \$10 per 100.

ROCK SALT.

Rock Salt in large lumps, for salting cattle. This article can be placed in the open field, and is not affected by the weather.

PASCHALL MORRIS, Co.
HAY, STRAW AND FODDER CUTTERS.
Webb's, Hovey's, Emery's, Rie's, Potts', Catchpole's, and other Straw and Fodder Cutters and Crush-

ers; also Hick's Portable Cider Mills, which will make from 5 to 10 barrels per day. For sale by

PASCHALL MORRIS, & Co.,
Agricultural Warehouse and Seed Store,
West Chester, Pa.

FRUIT & ORNAMENTAL TREES & SHRUBBERY.

The subscribers offer for sale the present fall, at their Nursery, Garden & Green-house Establishment, West Chester, Pa., a large and select assortment of the different kinds of FRUIT TREES which they offer by wholesale or retail, at reasonable prices, viz: Apple, Pear, Peach, Plum, and Cherry trees, Apricots, Nectarines, Figs, Filberts, English Walnuts, Strawberries, Raspberries, Gooseberries, Currants in great variety, Quinces, Almonds, hardy and tender Grape Vines. Also a fine collection of Dwarf Pears on Quince adapted for immediate bearing, and embracing some 25 or 30 varieties. Some of them now in fruit.

Also Evergreen and Ornamental Trees and Shrubs, both of native and foreign growth, of all the most desirable kinds for our climate. Norway Fir, Balm of Gilead, Austrian and Scotch Pine, Lebanon and Deodar Cedars, Cryptomeria, Japonica, Chili Pine, Himalayan Spruce, several varieties of Box, Arbor Vita, Helles nine varieties of Junipers, English and Irish Yew. Also a large collection of hardy roses and green house plants. Bulbous roots, Tulips and Hyacinths, imported Phloxes, Verbenas, Dahlias, embracing 40 varieties, imported the present season. English double Holly-hocks, very choice chrysanthemums, &c., together with all other articles usually found in similar well conducted establishments.

Orders by mail promptly attended to, and trees and plants carefully packed, and forwarded as directed. Catalogues furnished on application.

PASCHALL MORRIS & Co.
Nursery, Seedsmen & Florists, West Chester, Pa.

FRUIT & ORNAMENTAL TREES.

ELLWANGER & BARRY desire to call the attention of Nurserymen, dealers and planters to the immense stock of Trees now on their grounds embracing Fruit Trees of every description, viz: Standard Apples, Pears, Plums, Cherries, Peaches, &c., on free stocks for Orchards—vigorous and well formed.

Dwarf and Pyramidal Pear Trees, on quince stocks about 100,000, embracing every fine variety that can be so worked, 2 year old, trees low branched, vigorous and beautiful.

Dwarf and Pyramidal Cherries on mahaleb stocks five one, two and three year old trees; well branched and finely formed. Dwarf Apple trees, on Paradise and douglas stocks beautiful 2 year old trees with heads for immediate bearing, besides vigorous yearlings.

Gooseberries, large Lancashire sorts, strong plants for immediate bearing.

Currants, including the Cherry, Victoria, White Grape and many other new and fine sorts. See our catalogue.

Raspberries, the new large fruited monthly, Estoll, &c., &c. A complete collection of all desirable varieties.

Grapes, hardy native sorts, such as Isabella, Catawba and Clinton, strong two and three year old varieties of foreign grapes for vinteries, strong thirty plants in pots.

Strawberries of all desirable varieties. Rhubarb, a large stock of the best varieties in cultivation, and all other fruits cultivated.

The entire fruit department is under our own personal supervision. The best quality of stocks is used, and the most scrupulous attention given to ensure accuracy; we flatter ourselves that no Nursery collection can offer a stronger guarantee to purchasers in this respect. The stock is all grown on new fresh soil, and is healthy, well manured and hardy. We ask purchasers to examine it.

ORNAMENTAL.—Large trees for streets, parks, &c. Such as horse chestnuts, silver maples, Norway spruce, mountain ash, elm and tulip trees, in large quantities, cheap.

RARE ORNAMENTAL LAWN TREES. embracing the most novel, remarkable and beautiful trees, and shrubs both deciduous, and evergreen that can be grown in our climate, for particulars, we refer to the descriptive catalogue.

Roses.—One of the richest collections in the country, including the newest and best European varieties, selected by us last summer in person.

Bulbous Roots imported annually from Holland, can be supplied after 1st Sept.

Dahlias. The new English and French prize varieties of 1851, besides fine older ones.

All articles packed in the best manner and forwarded to any part of the U. S., Canada or California. Orders strictly complied with in every particular. The following catalogue is enclosed to all who apply and enclose stamps to cover postage which must be repaid.

No. 1.—A Descriptive Catalogue of Fruits.
No. 2.—" " Ornamental Trees, Shrubs &c.
No. 3.—A catalogue of Dahlias, Fuchsias, Chrysanthemums and budding plants.
No. 4.—A wholesale catalogue, for Nurserymen and others, who wish to purchase largely.
Postage on Nos. 1 & 2—500 miles or under 3 cts; 500 to 1500 m. 6 cts.
" 3 & 4—500 " " 2 " "

MOUNT HOPE NURSERIES.

Sept. 1, 1853

Rochester, N. Y.

PUMPS, FIRE-ENGINES, CASE IRON FOUNTAINS, &c., &c.

The subscriber manufactures double-acting, lift and force Pumps, (perpendicular and horizontal,) of any size or capacity, which, from their simple construction are well calculated for Factories, Mines, Railway Water Stations, Tanneries, Breweries, Irrigation, Hydropathic establishments, or any other situation where water is required.

VILLAGE AND FACTORY FIRE ENGINES.

Having a double-acting force pump. They are light, easily handled and worked by few men.

Cistern and Well Pumps, for in or out doors.

Garden Engine, with a small size double acting lift and force pump. Arranged with or without action. They are so adjusted that one person can wheel them from place to place, and are well calculated for agricultural and horticultural purposes.

Ornamental cast iron fountains of various styles and prices.

Copper Riveted Hose of all sizes, Hose Couplings, Stop cocks, Lead and cast iron pipes, &c.

I am now ready to receive orders and build Steam Engines from 3 to 15 horse power, portable or stationary, horizontal or perpendicular. I shall build them in as simple a style as possible, combined with strength and sure of getting at every part, and adapted for any purpose required. When an engine is required for raising water of any amount, I can adjust the pumps in a compact form easily got at, and disconnected from the engine, when not required for pumping. In many situations steam is the most profitable mode of raising water, as the engine can be used for other purposes to advantage.

Also prepared to receive orders or give information upon lathes, planers, presses, shafting, pulleys, and machinist tools in general, from the firm of Messrs O. Snow & Co., Meriden, Conn.

Any communications by mail will have immediate attention.

G. B. FARNHAM, 31 Cliff st., near Fulton, N. Y.

AGRICULTURAL IMPLEMENT WAREHOUSE.

No. 65, Chesnut street, Philadelphia.

The subscriber offers for sale, Hay, Straw and Cornstalk cutters; Cornstalk Cutters and Grinders; Corn Cob Crushers and Grinders; Corn Shellers and Separators; Root Cutters of the most approved patterns, warranted to cut, by hand power, from one to two bushels of roots per minute; Bambrorough's celebrated Grain Fans; Grain Cradles Revolving Hay Rakes self-sharpening Plows, various patterns; plain point Plows of various patterns; Subsoil Plows, Harrows, Cultivators or Hoe Harrows, churns, Seed Drills, Corn Planters, Corn Shellers, Scythes, Grass Hooks, Spades, Shovels, Rakes, Hoes, Hay and Manure Forks, &c., &c.

Orders received for any and every Agricultural Implement now in use, which will be furnished at manufacturer's prices.

D. LANDRETH.

August, 1852.]

No. 65, Chesnut st., Philad.

TO FARMERS!

LANPHEAR & JEFFERIES.

RESPECTFULLY invite the attention of Farmers and others to their Establishment for the manufacture of Farming Implements and especially to their celebrated

IMPROVED GRAIN FANS,

which they confidently assert will do more work in a shorter space of time, and with less labor, than any other Fan now in use. These Fans, wherever introduced, have given complete satisfaction, and a large number of testimonials could be procured, testifying to their superior merits.

They also manufacture, to order, Agricultural Implements of various kinds: such as *Straw Cutters, Cultivators, Ploughs, Harrows, &c.*

Having had many years' experience in the best shops in the country, they are prepared to do work of a superior quality a little cheaper than any other establishment in the State. They warrant all their work to be what it is represented. A warrant given with every Grain Fan, giving the purchaser the privilege of returning it, should it not do good and quick work.

They will deliver them, free of expense, any distance within fifty miles of the manufactory. Their Shop is at the junction of the Marietta and Columbia Turnpike, Lancaster, Pa., where they will be happy to have Farmers call and examine for themselves. Price of Fans, No. 1, large size, \$24.00

" " 2, small size, " 22.00

Several good and responsible Agents wanted in the Western and Middle part of Pennsylvania, to whom a fair percentage will be allowed. All orders addressed to Lanphier and Jeffries, Lancaster Pa., will meet with prompt attention. June 1-11.

ALDERNEY AND IMPROVED SHORT HORN CATTLE.

THREE thorough bred Alderney BULLS, from nine to eleven months old, raised from the choicest imported stock. Also, two thorough bred young short horn Bulls, ten months old, raised on the farm of Mr. T. P. Remington, near Philadelphia, and for sale by AARON CLEMENT, Agent for the purchase and sale of improved stock, Cedar street, above 9th street, Philadelphia. February 2d, 1852.

IMPORTANT TO FARMERS!

THE farmers who make the most money are those who take advantage of all improvements in agricultural implements or stock, so as to receive in return for their labor as large a yield as possible. The truth of this assertion will be admitted by every one. The only question then, the farmer has to decide about is about to purchase a new implement in which is the best? To those in want of a Wind Mill or Grain Fan,

Bambrorough's Improved Fanning Mill

is confidently offered as the very best article of the kind that can be had. Its advantages over all other Fans can be told in a few words, viz: it will do more and better work in less time and with less labor than any other description of fan ever offered to the public. In proof of this statement, I refer to the eight thousand farmers in the United States who have used my fans, and to the proceedings of the various State and county Agricultural Societies held within the last six years, at which my Fan was, in all cases, awarded the highest premiums over numerous competitors! A large number of silver medals and diplomas can be seen by calling at my shop.

The following is one of many similar letters almost daily received:

Lexington, Missouri, Nov. 21, 1851.

Mr. Bambrorough—Dear Sir: I see by the reports of the different Agricultural exhibitions that you have been getting more premiums and honors for your celebrated patent grain fan. And why should you not? You surely are justly entitled to any that were awarded you. In my opinion, the equal to your fan is nowhere to be found, much less its superior. The millers say to all the farmers who bring in their wheat that it is not very clean; that they ought to get a mill like I got of you to clean their wheat; for we have no use for rolling screens or smut machines, for any grain cleaned on the mills I got of you. JOHN T. NICHOLAS.

P. S.—I am now making out a bill to send to you for a large number of your fans, as soon as the navigation opens. J. T. N. Mills for sale, wholesale and retail, different sizes and prices from 24 dollars, to 26, 28 and 30. I have been in the business 15 years and made and sold 8,500. Direct to me at Lancaster, Pa. Fauscent to any part of the United States.

JOHN BAMBOROUGH, Patentee.

Several trusty agents wanted to sell rights. Orders may also be sent to Trenton, New Jersey.

CAUTION—All persons are warned from trusting any person on account of the subscriber, unless he has a written order. J. B. July 14. 11.

TO FARMERS—SALINE FERTILIZER.

This preparation is designed to furnish the soil the various mineral or organic materials abstracted from it by plants in the process of vegetation.

It contains a large proportion of the salts of potash soda and ammonia, combined with Bi-Phosphate of Lime, Animal Charcoal and other fertilizing matter; the whole forming a highly concentrated manure.

In thus offering a new article to the attention of farmers, the relative value of which remains to be tested by experience, it is desired not to venture upon any assertions respecting it, calculated to excite expectations, which, perhaps, might not be realized; knowing, however, that the principal constituents of this compound have been proved to be highly valuable separately, it is confidently believed that their combination in proper proportions is the "Saline Fertilizer" will form an excellent manure.

DIRECTIONS FOR USE.

The Fertilizer should be applied at the rate of two barrels to the acre, and spread broad-cast on the surface.

If, on opening the barrels, the salts should be found adhering together in lumps, they should be broken, say with the back of a shovel, upon a floor or smooth surface, and, if convenient, a little good dry mould may be added, and well mixed before spreading.

For wheat or rye one barrel per acre may be used before sowing, and lightly harrowed in, and the other applied as a top dressing early in the spring, at the commencement of the first thaw.

Upon grass it should be sown broad-cast, and, if possible, when the ground is wet, or when there is a probability of rain, to dissolve the fertilizing salts: generally late in the fall or early in the spring, will be found to answer best.

Upon corn, it would perhaps be advisable to apply one barrel to the hill, and one broad-cast.

If added to the manure or compost pile, the Fertilizer will doubtless increase greatly the efficacy of the mixture.

The experience of Agriculturalists will probably suggest other modes of employing it, as soon as they become satisfied of its utility. It should not, however, in any case be mixed with quick-lime which will cause a loss of ammonia, nor should it be buried deeper in the soil.

Price, \$2 20 per barrel.

Manufactured and for sale by

CARTER & SCATTERGOOD,

June, 1852]

Office, 84, Arch st., Philad.

SHANGHAI & COCHIN CHINA FOWLS

For Sale.

The subscriber has on hand a number of young Cochin China & Shanghai Fowls of the latest importation, which he will dispose of at fair prices on post paid application, addressed to

PHILIP HUNT,

West Phila., Chesnut st., 2nd door West of Pub School House.

FARMERS! LOOK TO YOUR INTERESTS.

STILL GREATER IMPROVEMENTS IN GRAIN DRILLS.
PRICE REDUCED TO SIXTY DOLLARS!



MOORE'S PATENT
SEED AND GRAIN PLANTER.

This Machine was Patented July 2, 1850, and has received the highest premium at all the Exhibitions where it has ever been contested; including New Castle County, Delaware, Agricultural Society, October 9th 1850; Philadelphia and Delaware County Agricultural Society, October 17th, 1850; Maryland State Agricultural Society, October 23d, 1850, and October 24th, 1851, and Michigan State Agricultural Society, September 25th, 1851.

THE ABOVE DRILL is not liable to get out of repair, is exceedingly simple in its construction, will sow point rows in all irregular shaped fields, and possesses superior advantages to all others in the ease and quickness with which it can be regulated to sow any desired quantity of Grain per Acre, while the draft upon the horses is twenty-five per cent. lighter, and consequently with the same labor, can seed one-fourth more ground per day than with most other machines now in use. The objection so common to Drilling Machines of becoming CHOKED if the seed is not perfectly cleaned, is entirely obviated in the Simple and Peculiar construction of this Drill, as white

caps and short straw will not interfere in the least with the regular distribution of the seed. It is warranted to distribute the seed evenly; to sow and quantity per acre commonly sown broadcast; to not cut or break the grains; to be well made with good materials and durable with proper care.

Having sold about 400 of the above Drills the past season, all of which met with the unqualified approbation of the purchasers; and after careful and thorough experiments, which have resulted in Still Greater Improvements, we now feel warranted in saying that Moore's Patent Seed and Grain Planter improved, is superior to any other machine for the purpose, now in the market.

Having made arrangements to furnish 1000 of the above Machines for sale the coming Season, we shall be prepared, at all times, to supply orders without delay.

All orders addressed to the undersigned will warrant prompt attention.

LEE, PEIRCE & LEE.

August, 1852.] *Ericldown P. O., Chester Co., Pa.*

MYERS' CHEMICAL ANIMAL MANURE.

That of offering to the public a Manure which comprises all that could be wished—its cheapness and surprising effects in producing larger crops in any kind of soil—is lasting and enduring qualities.

The subscriber offers this Manure to the public with a full knowledge of its powerful effects upon ground where used. This Manure must take its precedence above all others; its adaption to all kinds of soil, and every particle of fertilizing properties being preserved in the mode of manufacture, render it at once cheaper than any other manure used for all kinds of crops. Its effects are wonderful. A supply always on hand.

WM. MYERS.

SEVENTH STREET near Germantown Road, Kensington, Phila.

GERMANTOWN, October 8, 1851.

To Mr. Wm. Myers—Sir—Having tried your Chemico-Animal Manure upon potato ground, this season, I find it produce one-third more and larger potatoes than the best horse manure in the same ground.

WM. K. COX.

The following additional certificate just received, speaks for itself.

WOODBURY, N. J., 10th mo 20th, 1851.
I have used upward of 1000 bushels of WM. MYERS' ANIMAL MANURE, on corn, potatoes, turnips, melons, and some other crops during the present season, and am satisfied that it is an economical and powerful manure, for turnips, radishes, and other root crops—my experience has shown it to be especially valuable.

DAVID J. GRISCOM.

Mr. Wm. Myers—Dear Sir—I manured with your Chemico-Animal

manure about 35 acres of the poorest land on my farm, and put half in Oats, and the balance in Corn. Although it was got in quite late, and the Season very unfavorable for the Corn crop generally, yet notwithstanding, I can say that it is decidedly the best Corn I ever raised, although I have farmed for 20 years, and have had good Corn land, and Manured well, as I thought, in the old way. While my neighbors' Corn was quite yellow and leaves curled up with the drought, mine was green and growing rapidly; therefore, I consider it one of the most valuable manures I ever used, and shall take pleasure in recommending it to my neighbors and others.

Yours respectfully,

E. M. SEELY.

SIDLE'S HUB, AUGUR AND BOX REGULATOR.

THE subscriber residing in Dillsburg, York county, Pennsylvania, has invented a new and improved Augur for the boring of hubs, and setting the boxes of wagon, carriage and other vehicle wheels for which I have obtained letters patent.

The Augur will bore both ends of the hub at the same time, or either separately—and is the most useful and important invention of the age for inserting wagon boxes and the only Machine in existence by which they can be inserted exactly true—and is so perfectly simple in its construction, and constructed on such just mechanical principles, that it cannot possibly get out of repair.

With this Augur a set of boxes can be inserted in a few minutes—where under the old system it requires hours to perform the same amount of work.

Persons wishing to purchase Territory or Shop rights will please address the subscriber, who will sell on terms that will enable purchaser to make money.

MENRY SIDLE.

Dillsburg, April, 1852—11

Agricultural and Horticultural Works.

THE subscribers have on hand and for sale, a large assortment of Agricultural and Horticultural Works for the Farmer and Gardener, among them are the following:

Youatt on Horses,
" " Pig.
" " Dog.
Youatt & Martin on Cattle,
Complete Farmer & Gardener, by Fessenden,
Downing's Country Houses,
Downing's Country Houses,
Youatt on Sheep.
Stephen's Book of the Farm,
Norton's Elements of Scientific Agriculture,
Cottage and Farm Bee-keeper,
Johnston's Agricultural Chemistry,
Buist's Flower Garden Directory,
Buist's Family Kitchen Gardener,
Breck's Book of Flowers,
Buist's on the Rose,
Allen's American Farm Book,
Brown's American Muck Book,
Darlington's Flora Cestrea,
" " Ag. Cultural Botany,
Guenon on Milk Cows.
Fessenden's Farmer's own Book,
Eubank's Hydraulics,
Also, all the leading Agricultural and Horticultural Periodicals
PASCALL MORRIS & CO'S.
Agricultural Warehouse and Seed Store, West Chester, Pa.

THE MODEL SEED STORE,

300 Market Street, above 8th street, Philadelphia.

MODEL SEED STORE.

VEGETABLE SEEDS, every known variety.

FLOWER SEEDS, 500 varieties

GRASS and FIELD SEEDS.



Agricultural and Horticultural Implements.
THOMAS F. CROFT, Proprietor.
Agent of Penna. Farm Journal

CUMBERLAND NURSERIES.

NEAR CARLISLE, PA.

The proprietor of the above establishment, in calling the attention of the public to his present stock of Fruit, Evergreen and Ornamental Trees, Shrubs, Plants, Vines, &c., would call especial attention to his fine stock of well grown Apple Trees, which embraces one of the most complete collections of varieties to be found in the country. As evidence to this last assertion, please let him draw your attention to the reports of the various Pomological and Horticultural Exhibitions, as well as State Fairs, &c., that have taken place in this and the adjoining States, for the last few years.

All Trees carefully packed so as to carry safely to any part of the country, for which no greater charge will be made than to cover cost.

Catalogues given gratis to all post paid applicants, who will please enclose a post stamp to prepay the same. Address DAVID MILLER, Jr.,

Cumberland Nurseries,
Dec. 1852.] Near Carlisle.

THE NEW YORK AGRICULTOR.

A WEEKLY JOURNAL IN LARGE NEWSPAPER FORM.

Devoted to the interests of the COMMERCIAL as well as PRACTICAL FARMER and PLANTER, the STOCK BREEDER, the RURAL ARCHITECT, the FRUIT and ARBORICULTURIST, the MARKET and KITCHEN GARDENER, and the FLORIST: together with a complete summary of the most important FOREIGN and DOMESTIC NEWS. Published every Thursday.

TERMS.

One Copy,	- - -	\$2 per annum.
Three Copies,	- - -	5 " "
Five Copies,	- - -	8 " "
Ten Copies,	- - -	15 " "
Fifteen Copies,	- - -	20 " "
Twenty Copies,	- - -	25 " "

The first number will be issued on Thursday, Oct. 21. Postage, Half a cent per week.

All Postmasters and others, disposed to act as Agents, will be furnished with Prospectus and Specimen numbers, on application to the Publishers.

A. B. ALLEN & Co., 189 Water St., N. Y.

THE NEW YORK FARM AND GARDEN.

A MONTHLY JOURNAL, OF THIRTY-TWO PAGES, DOUBLE COLUMNS, IMPERIAL OCTAVO; MADE UP, PRINCIPALLY BY SELECTIONS FROM THE WEEKLY PAGES OF "THE NEW YORK AGRICULTOR."

This periodical will be devoted exclusively to the Farmer and Planter, the Stock Breeder, the Rural Architect, the Nurseryman, the Gardener and the Florist.

Each number will be filled entirely with PERMANENTLY VALUABLE reading matter. No advertisements allowed in its columns; and not even the large heading, or terms and contents, usual on the first and last pages of similar journals, will be permitted. All such matter will invariably appear on the cover. Thus, the numbers of the FARM AND GARDEN, bound up at the end of the year, will have the same appearance as a book. This is a new feature in periodicals of this class, and should the more highly commend it to public favor. Published on the first day of each month.

TERMS.

One Copy, \$1.00 per annum. Three Copies, \$2.00 per annum. Eight copies, \$5.00 per annum.

Lower rates than the above will be made with Agricultural Societies or Clubs, by taking a larger number of copies. Postage, only one-half a cent per month.

Postmasters and others, disposed to act as Agents, will be furnished with Prospectus and Specimen Numbers, on application to publishers.

A. B. ALLEN & Co., 189 Water St., N. Y.

INDUCEMENT TO GENTLEMEN ACTING AS AGENTS.—Any person forwarding us ten or more subscriptions each, for either of the above papers, will be entitled to a copy, gratis, for one year.

Seed and Agricultural Warehouse.

No 29, Market Street, Phila.

WHERE the subscriber has opened an extensive assortment of GRASS AND GARDEN SEEDS, of his own raising, or recent importation and warranted to be as represented.

He is also, manufacturing all the most approved Agricultural Implements, among which he would call the attention of Farmers to a new article of Plow, of his own invention, called Cast Steel, Extending Point, Self-Sharpening, Surface and Subsoil Plow, which for durability and easy of draft is yet unequalled.

The great advantages these Plows possess over all others, are their peculiar construction and the substitution of Cast Steel in the place of Cast Iron, which only wants to be seen to be appreciated, all of which will be sold on the most reasonable prices by C. B. ROGERS.

May



VOL. 2. WEST CHESTER, PA., FEBRUARY, 1853. NO. 11.

THE FARM JOURNAL.

J. L. DARLINGTON, EDITOR.

A. M. SPANGLER, ASSISTANT EDITOR.

AGENTS.

THE FARM JOURNAL may be had at the following places:—

W. B. ZIEBER, South 3d, St., principal Agent for Philadelphia.

W. H. SPANGLER, - - Lancaster, Pa.

B. F. SPANGLER, - - - Columbia, Pa.

Geo. BERGNER, - - - Harrisburg, Pa.

H. MINER, - - - - - Pittsburg, Pa.

J. R. SHRYOCK, - - - Chambersburg, Pa.

H. M. RAWLINS, - - - Carlisle, Pa.

A. L. WARFIELD, - - - York, Pa.

WM. DOMER, of Altoona, Blair County, is our authorized agent for Blair and Centre counties.

A. E. BRADY, Cumberland and Perry counties.

Jos. PRESTON, Kennett Square, for Chester and Delaware counties.

JONATHAN DORWART, Lancaster county.

SAMUEL H. WOOD, of Norristown, for Montgomery and Bucks counties.

And of Booksellers generally.

Portable Grain Mills.

Now that horse-powers have become so common, we think a good and not too expensive portable mill for grinding and mixing grain for horses, cattle, hogs, &c., and which could be used on the barn floor, would find a ready sale. The one-tenth toll, and the loss of time of teams and men in going some miles, makes an item well worth saving. Such a machine might also embrace the making flour and meal for family use. If they are in use any where we should be glad to have a cut and description for the Farm Journal.

J. S. L. is received. A better plan would be to mow the weeds down after harvest, before they have gone to seed and exhausted the ground. By "sleet time" the mischief is all done.

Analysis of Soils.

That the inorganic constituents of our cultivated crops as developed in their ash must be derived from the soil, and that where it is defective in these, a defective crop is the necessary result, are facts which, though not new, are only beginning to be fully appreciated by the generality of our farmers. As reasonable is it to expect a mechanic to manufacture his wares without giving him the materials of which they are composed, as to expect a crop of wheat, Indian corn or potatoes where the soil is destitute of phosphoric acid, potash, magnesia, and other elementary constituents which analysis has proved to enter largely into their composition. Agricultural chemistry has shown us what most of our cultivated crops are composed of, and all that is wanting to an enlightened system of cultivation, is for the practical farmer to make himself acquainted with the composition of his soil so as to adapt the one to the other, and thus be able to apply such food for plants in the shape of manures, and such only as are wanting, or may result from chemical combinations therein.

One invariable rotation of crops, the uniform application of the same manures, prevails in this district of country, and in most others through Pennsylvania. Barn-yard manure applied to the wheat crop in the fall of the year, after being exposed for nine or ten months to the weather, and an occasional dressing of lime and plaster are the three great specifics for all kinds of crops and all soils. That this system often results in large products of corn, oats, wheat, potatoes, &c., is an evidence of the natural fertility and absorbent power of the soil, and of the value of these materials, but it does not prove that their indiscriminate application, in the way they are used, is, in all cases, the most profitable one. Nothing is more common than to hear practical farmers differ in opinion as to the use of lime and plaster.

One has told us that after using the latter for several years, he had entirely abandoned it, never having observed the least benefit. Another, within a

short distance, has usually applied a small quantity to each hill of corn, and has observed the benefit, not only in that crop, but each successive one of oats, wheat, grass has indicated by its deep green and luxuriant growth, where each hill of corn had

The first concludes plaster is of no use, and so informs his friends and neighbors that he has tried it fairly, and it is money thrown away. All within his influence are thus discouraged from using plaster. His neighbor tells a different tale, shows its good effects, and plaster becomes a *panacea* for improving land. One of our best farmers, who has been in the habit for many years, of applying considerable quantities of both lime and plaster, tells us that on one occasion, where the plaster fell short of going over the entire field, leaving a whole land across it untouched, this part could be observed at a distance by its increased luxuriance over the rest, indicating there was an excess of sulphate of lime, already in the soil, and that more produced a positive injury. The same discrepancy is found to exist with respect to lime and barn-yard manure, little or no advantage often resulting from their application

ular crops. The different results in these cases, is owing to the variable composition of the soil, and we refer to them as an illustration of the importance of analysis—as indicating what is deficient, and enabling us to supply it. Because a certain manure has failed or succeeded under certain circumstances, is no more proof that it will do the same in every other soil and situation, than that because the Laplander can digest whale oil and tallow candles, the same articles are suitable food for residents of a tropical climate. The organic food of plants, constituting over 90 per cent., is derived chiefly from the atmosphere; the remainder, or inorganic constituents, solely from the soil, and these, although in such small proportions, are equally necessary with the others. The following tables, giving the composition of several of our cultivated crops, will be found useful:

	Indian Corn.	Wheat.	Wheat Straw.	Rye.	Oats.	Potatoes.	Tur. nips.	Hay.
Carbonic acid.	trace.	1.0	1.0	1.5	10.5	7.1	13.6	2.7
Sulphuric acid.	49.2	47.0	3.1	47.3	43.8	11.3	7.6	6.0
Phosphoric acid.	0.3	trace.	0.6	0.3	0.3	2.7	3.5	2.6
Chlorine.	0.1	2.9	8.5	2.9	4.9	1.8	13.6	22.0
Lime.	17.5	15.9	5.0	10.1	9.9	5.9	5.3	5.7
Magnesia.	23.2	29.5	7.2	32.8	27.2	51.5	42.0	18.2
Potash.	3.8	trace.	0.3	4.4	2.7	8.6	5.2	2.3
Soda.	0.8	1.3	67.6	0.2	2.7	8.6	7.9	37.9
Silica.	0.1	trace.	1.0	0.8	0.4	0.5	1.3	1.7
Iron.	0.1	trace.	1.0	0.8	0.4	0.5	1.3	1.7
Charcoal in ash, and loss.	4.5	2.4	5.7	0.3	0.3	0.7	0.7	0.7
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The theory of rotation is founded on the fact that every kind of plant requires its specific food, the amount of which is of course diminished by the production of every subsequent crop of the same kind. Although analysis may sometimes fail of giving the exact proportions, it may be relied on safely for indicating the general character, what it has and what

it wants, so as to form the basis of improvement. We consider it thus far as certain as mathematics, and its great importance, to the skilful farmer, cannot be too highly estimated. Plants, like animals, seem to have their instincts for certain kinds of food, and differ in their powers of selection and assimilation; the ash of different varieties, never exhibiting, on analysis, the same composition. No substitutes will answer. Hay, for instance, exhausts the soil of silica, lime, potash. No application of soda, magnesia, or chlorine, which it contains in very small quantities, will supply this deficiency.

It does not seem to us necessary that farmers should qualify themselves to analyse their own soils. The practical part of farming is amply sufficient to occupy their whole time, without attention to the laboratory. An analysis will not often be required more than once, but we hold it to be indispensable to correct and profitable management, that they should, in all cases, know the constituents of their soil, before they can judge what fertilizers are wanting, or in what quantities they should be applied.

In Maryland, a State Chemist is employed on a fixed salary, to analyse soils without expense to the farmer. There has been no liberality of this kind, as yet, in Pennsylvania, but we hope there soon will be. We have heard there is an agricultural chemist in Philadelphia, of some experience in this way, but we do not at present know who he is or where to be found. If any of our readers have this information, we shall be obliged by hearing from them, as our farmers are making inquiries of us on this subject.

Cutting Corn-fodder.

Enos Smedley, of this county, and of many years' experience as a dairyman, informs us of his great success the present winter in keeping his cows on corn-fodder, cut and crushed by a horse-power and machine. His plan is to cut off a foot or eighteen inches of the butts before putting it through the machine. This is worked on the barn floor, with a one horse power, and the cut fodder discharged through a funnel into the entry below, contiguous to the cow stables. Here it is emptied into a large box made for the purpose, and holding about 34 bushel baskets full. This is well mixed up with an equal number of quarts of meal, and the whole slightly moistened. He has 34 cows fastened up in separate stalls, and one bushel, heaped up, is found sufficient for a cow at a feed and they are fed twice a day, eating it up clean. Under this management they are improving finely, and wintering as well as they usually do on the best hay.

One sheaf of fodder cut up, making two good feeds, is worth here, about three cents, making 21 cents per week. Sixteen quarts of meal per week for each cow is worth 32 cents. Total for keep of cows each, per week, 53 cents. This is cheap wintering, and a strong

illustration of the great advantages of cutting food for stock. Such evidence of what *has been done*, is worth pages of theory in convincing farmers of the great loss they sustain in feeding hay and fodder uncut. Not only will one-half or two-thirds in quantity be sufficient, but there is a great saving in respect to waste. Those of us who have been used to feeding cattle in barn-yards, out of cribs, know that not less than about one sheaf to each animal is a sufficient allowance, and that when either corn-fodder or hay is fed whole, a considerable portion is dragged out over the yard and lost.

Hay is now worth from \$18 to \$25 per ton, and by this plan of feeding corn-fodder, a saving of some tons and the price of several machines may be effected in one winter. We have found, in our own experience, that when corn-fodder is fed, merely cut, without crushing, a very considerable amount is left uneaten. The sharp and tough edges of the stalk do not admit of proper mastication, and, indeed, is apt to make sore mouths. The machine used by Enos Smedley is of Potts' patent. Urmy's patent is said to be able to cut and crush from sixty to one hundred bushels per hour. Our readers will find in another place an excellent article, from the Michigan Farmer, on sowing corn for fodder broad-cast or in drills. We have tried this ourselves, and found it a most valuable food, especially for cows and young stock. We consider it preferable to hay. When not allowed to go to ear, the stalks abound in rich saccharine matter, and by the experiments of William Webb, of Wilmington, Delaware, who manufactured sugar from it, it would appear to be equal in this particular, to the sugar cane.

Agricultural Societies.

One of the most cheering evidences of the progress of agricultural improvement in Pennsylvania, may be found in the very great increase in the number of these within two or three years past. In a large number of counties they have been established within that time, and have held spirited and satisfactory annual exhibitions. Where county associations have been found to be impracticable, we observe agricultural clubs, for local districts or townships have been formed, which promise to be highly useful. One of these latter has been lately organized in Tredyffrin township, in this county, through the public spirit of our friend, Dr. Walker. They meet at stated times, and have a room in a central location, supplied with agricultural periodicals and standard works on agriculture and horticulture, and propose forming a cabinet of specimens of newly introduced field and vegetable seeds for inspection and distribution among farmers. The interchange of views, and discussions on practical subjects, comparisons of modes of cultivation and general farm management which will necessarily result from such clubs, can but be highly

useful, and we hope to see them multiplied in different directions through the State. They answer an excellent purpose in the different townships as auxiliaries to county societies.

We are desirous to obtain a list of the various county agricultural societies in Pennsylvania, for publication in the Farm Journal. We think it important on several accounts, such a list should be made out. It will bring more fully to view the relative condition of agriculture in different sections, and the progress of improvement, and be valuable for reference in obtaining statistical information.

We should be much obliged if the secretaries or other persons who have the means of correct information, will forward us an account of their county society; the year it was established, the number of exhibitions which have been held, and a list of the president, secretaries and other officers.

Salt for our Domestic Animals.

BY LEVI BARTLETT, WARNER, N. H.

Farmers in the same neighborhood differ widely in their views upon the most common farm operations, such as the depth of ploughing; the width and angle of the furrow slice; the application of manures whether it should be spread upon the land before ploughing, or after this operation, &c., &c. It is less strange that they should entertain different opinions in regard to other rural matters, not so palpably visible. Thus, while one farmer uses many bushels of salt annually for his farm stock, another scouts the idea of its use in either large or small doses. Some farmers practice salting their hay at the rate of one bushel of salt per ton. Mr. Pell, of Ulster Co., N. Y., several years ago, gave, in some agricultural paper, an account of his method of curing hay; which was, to get it in very green, and sprinkle on it one bushel of salt to each ton of hay. This statement called out several farmers in reply; and one of them pronounced "his practice actually cruel" to thus compel his cattle to eat such a quantity of salt. Some farmers use but two, others four quarts to the ton of hay, while, perhaps, a very large majority use none upon their hay, at the time of storing it in their barns. Thus, practical farmers disagree. How are we to decide the question, whether cattle should be supplied with salt, or not? Reasoning from the instincts of our domestic animals, and the researches in animal physiology, I can come to no other conclusion than this: that the health and thrift of our farm stock, in many sections of the country, depend much upon a full supply of salt, and that the pecuniary interests of the farmer require that he should, in some form, afford this supply.

The Creator has given to man reasoning powers and speech, by which he can communicate his wants, his likes and dislikes, and orally express them. To animals he has given instinct, which guides them in the selection of their food, and, in a good degree, teaches them to avoid that which is hurtful or poisonous. The almost universal relish our domestic animals manifest for salt, indicates most clearly, I think, the necessity of their being supplied with it; and this desire for salt is not confined to our domestic animals alone. The salt licks of the west were formerly much frequented by the buffalo, elk, and the huge mastodon and other animals

purpose of obtaining salt, so necessary to their well being. Our cattle have not the use of an intelligible speech, but "actions sometimes speak plain as words," and the actions frequently manifested by cattle for salt cannot be misunderstood. They mean, give us salt; the cravings of nature require it, and most farmers believe the fact. Therefore, some good farmers always keep salt in troughs, under cover of a shed, where their cattle have access to it through the year. In such cases, it is probable the cattle just take what is necessary, no more, no less. Others give salt to their cattle, sheep, &c., once a week; whether this is as often as is necessary, (especially in the early part of the pasturing season, when the grass is tender and succulent,) admits of some doubt. Besides, they may eat too much at such times for their health, and the weaker ones may not obtain their share.

Chemical analysis long ago taught us that the bones of animals were chiefly formed of phosphate of lime; but it was not known till the publication of a work on animal physiology, by Professor Liebig, some three or four years ago, that the chloride of sodium, (common salt,) and phosphate of soda were invariably found in the blood, and that the phosphate of potash and the chloride of potassium were of constant occurrence in the juice of the flesh. These facts prove that these substances are indispensable for the healthy process carried on in the blood, and in the fluid of the muscles. Says the Professor,—"Proceeding on this assumption, the necessity for adding common salt to the food of many animals is easily explained, as well as the share which that salt takes in the formation of blood, and in the respiratory process. It is a fact now established by numerous analysis, that the ashes of inland plants, growing at a certain distance from the sea, contain no soda, or only traces of that base. The potashes of inland countries rarely contain any carbonate of soda, while the ashes of the same plants, growing in maritime countries, near the sea-coast, contain phosphate of soda and common salt; therefore, the food of animals is not in all places of the same quality or composition, in respect to the two bases, potash and soda."

"An animal feeding on plants which contain phosphates of other bases, along with some compounds of soda or sodium, produces in the body the phosphate of soda, so indispensable to the formation of the blood. But an animal living inland, obtains in the weeds, herbs, roots and tubers which it consumes, only salts of potash. It can produce, from the phosphates of lime and magnesia, by decomposition with the salts of potash, only phosphate of potash, the chief inorganic constituents of its flesh, but no phosphate of soda, which is a compound never absent in (healthy) blood. When, in inland countries, the food does not contain common salt enough to produce the phosphate of soda necessary for the formation of the blood, then more salt must be added to the food. From common salt is produced, in this case, by mutual decomposition with the phosphate of potash, or with earthy phosphates, the phosphate of soda of the blood."

"The phosphate of soda is indispensable to the normal constitution of the blood, and that the process which goes on in that fluid cannot be replaced by phosphate of potash, seems to me to be an opinion fully justified by the properties of these two salts."

It seems to me, there can be no doubt in the mind of any one, of the correctness of the views of Professor Liebig, in regard to the utility of supplying farm stock with salt, in sections of the country remote from the sea-board, especially when we take his views in

connection with other familiar and well-established physiological facts.

Phosphoric acid and lime are indispensable in the formation of the bones of animals, and no other substances will answer that purpose. If the hay or grass upon which a milch cow is fed, is deficient in phosphoric acid and lime, instinct points out a remedy; the cow takes to eating bones, to supply the deficiency of the bone earth in her natural food. If she cannot obtain a sufficiency of phosphates for her milk, and to supply the daily waste going on in her bones and other portions of her system, emaciation and weakness follow, and sometimes death, from what is called the "bone disorder." A certain remedy for this disease is found in giving to the cows the fine bone-dust from the button-mould factories. A gill a day, given to a milch cow for a few weeks, will cure her of a propensity to eat old bones, and restore her to health and strength. There is no theory about this, it is a matter of fact. I have procured several barrels of the bone saw dust from the button factory at Brighton, as a medicine for the cows of farmers and others in this vicinity; and the past summer I furnished to a number of farmers the ground mineral phosphate of lime for the same purpose, and with equally good results. Lime is the principal mineral ingredient in the formation of an egg shell. If a hen is shut up, and fed wholly on food containing no lime, she may occasionally lay an egg, but it will have no shell. A hen can no more generate lime than she can gold or silver; nor any more transmute any other mineral substance into lime, to form her egg-shell, than she can produce the new three cent pieces of coin from gravel stones. Sulphur is a prominent constituent of the yoke of an egg, that is derived from the food upon which the bird subsists. No other substance will supply its place in the formation of the perfect egg, and "any bird which can organize a perfect egg, without a particle of sulphur to enter into the composition of its yoke, can create and lay a little world, with all its inhabitants."

The blood of animals is made up of globules, some of which are white, and others red; the red globules owe their color to the oxide of iron. In those diseased states of the blood in which the red particles are deficient in quantity, the functions of life are languidly performed; by the administration in medicine of the salts of iron, the florid color of the blood and complexion is restored, and the general state of the health is improved. Probably, from some disarrangement of the assimilating vessels in those persons whose blood is deficient in coloring matter, the vessels do not take from the food sufficient iron; therefore, in such cases, it is given direct, and in larger quantity than is usually found in the food, and with good results.

Common salt is a combination of muriatic acid with soda, an element, (in connection with certain acids,) so necessary to a healthy state of the blood. Clover, red-top and herd-grass, grown near the ocean, contain so much salt as to render the salting of the cattle fed upon it unnecessary, while the same kind of grasses grown here, some 60 or 70 miles inland, is so deficient in soda, that it becomes a matter of much consequence that our cattle should be supplied with salt, for a certain amount of soda, from some source or other, is required in the blood, and required, too, by a law more immutable than that of the Medes and Persians. 'Tis this law that induces the "salt hungry" cow or horse, to lick, for the half hour together, an old cask that has been used for salting meat.—

Journal of Agriculture.

Sowing Corn for Fodder.

MACEDON, N. Y., 3d mo. 21, 1852.

M. Editor:—I observe in a late number of the *Michigan Farmer*, an inquiry for the best mode of raising corn for fodder, and having tried several different ways, the results may be of benefit to others.

A common, and a very objectionable practice, is to sow broadcast. This requires at least four bushels to the acre, and even with this amount of seed, the growth is not dense enough to keep down the weeds, and as a consequence, the ground is left in a foul condition.

The best way is to sow in drills. First plow and harrow the ground, as if for corn or potatoes; run furrows in one direction, with one horse, about three feet apart; with a hand-basket of corn on the left arm, walk rapidly along-side of the furrow, strewing the seed with the right hand, at the rate of about fifty grains to the foot, which will be about two bushels and a half to three bushels per acre. A little practice will enable any one to do this evenly and expeditiously. The seed may be covered in the best manner, by means of a one-horse harrow, a one-horse cultivator, or a two-horse harrow, passed lengthwise with the furrows. Two men will thus put in five or six acres in a day.

The only subsequent culture needed, is to pass a one-horse cultivator between the rows, when the corn is about a foot high. No hoeing is required. Its growth will soon cover the whole ground, and all weeds, no matter how thick they may be, will be completely smothered and destroyed; and when, at the close of summer, the crop is removed, the ground will be left as smooth and clean as a floor. No crop have I ever seen equal to this, for reducing grassy, weedy soil, into mellow condition, in a single summer.

If the crop stands erect, it is most conveniently cut with a stiff scythe. A little practice will enable the workmen to throw it all in an even swath, with the heads in one direction, so as to admit of easy binding in bundles. If much thrown down by storms it must be cut with a corn cutter. When bound, it is to be put up in large, substantial shocks, to stand several weeks, or till winter, unless the ground is to be sown with wheat, in which case, the crop must be drawn off, and deposited to dry, elsewhere.

Every beginner spoils his first crop, by its *heating in the stack*. Even after drying several weeks, there is moisture enough in the stalks to cause violent fermentation. The only mode of preventing this disaster, is either to leave the shocks on the ground till winter, or to build very small stacks, with three rails placed upright together at the centre, for ventilation, and applying plenty of salt.

Fodder thus grown, and well cured and salted, is greatly preferred by cattle, to hay. A neighbor thinks three tons are as good as four tons of good hay. It should be grown so thick, that the stalks will be quite small; then they will be wholly eaten by cattle, and none lost.

I have tried different quantities of seed per acre, and find that a much less rate than about three bushels, is attended with a diminished crop, although the stalks may be taller. One bushel per acre, will yield but little more than half as much.

I usually obtain, on land that will yield thirty or thirty-five bushels of corn per acre, from four to six tons per acre of dried fodder. Counting all expenses, including interest on fifty dollars per acre for the land, the dried fodder, as an average for five or six years past, has cost me about one dollar and a half per ton. Hay is usually sold here for six or seven dollars a

ton, and sometimes for ten. Yet it is astonishing how reluctant our farmers are in adopting the corn fodder cultivation. I hope the farmers of Michigan may set a better example of economy.

The best variety of corn appears to be that which will afford the greatest number of stalks to the quantity of seed sown. Coarse fodder is not as good as fine. A rather moist soil is best, as immense quantities of moisture are thrown off by such a mass of leaves.

Besides the cheapness of this crop, and the great ease of its cultivation, it possesses the following advantages: 1. It may be sown after the hurrying work of spring is accomplished, or at the end of spring, or early in summer. 2. It may be harvested after the wheat and hay crop are secured, or during the comparatively leisure season at the close of summer. 3. Not yielding any grain, it does not exhaust the soil, and is, perhaps, the best crop to precede wheat. 4. It is an admirable crop for smothering and destroying weeds and grass.

A brief glance at the advantages of the general cultivation of this crop, may not be out of place. The value of the annual hay crop in the United States, is about one hundred millions of dollars. Those who have already adopted the corn-fodder crop, winter their cattle at less than half their former expense. Would it, therefore, be extravagant to believe that one quarter of the present expense in the use of hay throughout the country, would be saved by its general use? Yet one quarter is about twenty-five millions of dollars yearly—enough to endow agricultural schools, and build railroads by the score—and is well worthy of some exertion for its introduction at large.—*Michigan Farmer.* T.

American Poulterer's Companion.

A Practical Treatise on the Breeding, Rearing, Fattening and General Management of the Various Species of Domestic Poultry; with Illustrations and Portraits of Fowls taken from Real Life. By C. N. BEMENT, fifth Edition, Harper & Bros., New York.

Within a few years past, several publications, purporting to treat upon the rearing and management of domestic poultry, have been issued from the American press. Some of these works are mere re-issues of foreign authors, while others assume an air of originality, and profess to guide and instruct the farmer in all the details and management of an American poultry yard. With a single exception, however, any one or all of these publications may be read by the farmer, and he will close the volume with the feeling uppermost in his mind, that the information most desired, has not been obtained. True, he may have read with some degree of interest the origin and history of numerous varieties of "fancy fowls," (which seems to make up the sum and substance of most works on poultry,) but in this realizing age, the farmer turns to his books for a more remunerative kind of information. He expects to be told how to make his poultry profitable, and when he can see for himself by the facts and figures of an experienced poulterer that these neglected tenants of his farm

yard can be made as profitable as any other branch of farming, he will be likely to treat them with the same consideration that he does his more costly Devons and Durhams.

In the book before us there is more of the right kind of information for the poulterer, than in any publication that has heretofore come under our notice. The author, C. N. BEMENT, is eminently a practical man, and the name of the author alone, is an ample guaranty that his neat little volume is precisely what it professes to be—a practical treatise on the rearing and management of domestic poultry.



OUR OWN POULTRY HOUSE.

The above figure represents the front and elevation of rather an extensive and costly establishment, which would be very convenient, and add much to embellish the premises. The buildings at the ends are intended for laying, hatching, and roosting apartments. The cupolas on the tops are finished with blinds, for the purpose of ventilation as well as ornament. On the bottom of the cupolas, and inside of the building, should be a door, hung on hinges, with a cord attached passing through a pulley, so that it may be closed or opened at pleasure, to ventilate when required. In the gable ends, if facing the south, dove cotes may be formed; or they may be made in the roof, as in the figure.

The long building with windows in front, connecting the two extreme ones, is intended for a storm-house, chicken saloon, or walk, for exercise in the winter, as well as a retreat from storms, feeding, basking, gravel, sand, lime, &c.; being made warm by filling in with brick, or lathed and plastered, and the roof should be thatched with straw. The front should be ten feet high, roof sloping to the north. The windows are intended to admit heat in winter, as well as light. If only for a storm-house, the windows may be omitted, and the front finished in the form of a shed. It will be found very convenient for feeding and watering, as well as for gravel, ashes, lime and sand. Boxes for nests may also be placed there for laying and hatching. By partitioning it off, two varieties of fowls may be kept separate; or one side may be appropriated for turkeys and guinea-hens, and the other to the gallinaceous tribe. Doors from each should open into the yards, which should be of considerable size; say, at least half an acre for two hundred fowls, as room and space in the air is necessary for their health, when they are not permitted the range of the barn-yard. The yard should, if possible, be a little sloping, that it may dry, as moisture is a most destructive enemy to poultry. It should be enclosed by a fence, at least seven feet high, with long, sharp pickets, and the timbers on which the pickets are nailed, unless some distance below the

With many years experience in the management of his own extensive poultry yards, he is enabled to give his readers the actual facts and figures in regard to profits and expenses, the most economical kinds of food, and many other important results to be obtained only by close personal observation and experience. But, we will let Mr. Bement speak for himself, and, as a convenient poultry-house is the first and most important, we might add, indispensable arrangement for the successful poulterer, we will select two of his best plans—the first, somewhat costly and ornamental, the other cheap and plain:

top, should be on the outside, to prevent the fowls perching on them, as they seldom attempt to fly over a fence without alighting. When first confined, if they have been used to roam over the premises, they will show some impatience, which soon wears away, if everything else is made agreeable to them. It may, however, be necessary to clip the wings of some of them, when first introduced, particularly if taken from the barn-yard, where they have always had their liberty. My fowls are so attached to the yard that they are unwilling to leave it, even when the gates are open—the effect of education.

The buildings at the ends should be thirteen feet square, and thirteen feet posts. We name this size, as there would be no waste of timber, being just the length of the boards and joists. If not too near the dwelling-house, so that there would be danger of fire from sparks, we would recommend to have the roof thatched with straw, as being much warmer in winter, and cooler in the summer, and when well done, it forms a light and durable roof, and will last for twenty years. It should, however, be made very sloping, in order to carry off the water more readily. A hole one foot in diameter, about two feet from the ground, with a door, either to slide, or hung on hinges at the top, which may be held open by means of a cord, should be made in each department, for the fowls to pass in and out, and to confine them when necessary. There should be no floor in the first story to prevent the fowls from coming to the earth; and the litter should be often removed, and the bottom sprinkled with lime, at least once in each week.

In the second story, there should be a tight floor under the roosts to catch the droppings of the fowls, by which means the apartment can be kept much cleaner, and the manure may be saved and sold to the morocco-dressers, for which they readily pay eighteen cents per bushel; or it may be gathered for manure, which, with the exception of pigeon's dung, is said to be the strongest of all animal excrements—it is home-made Guano. This will add an item to

the profit of keeping fowls, that has heretofore been entirely overlooked.

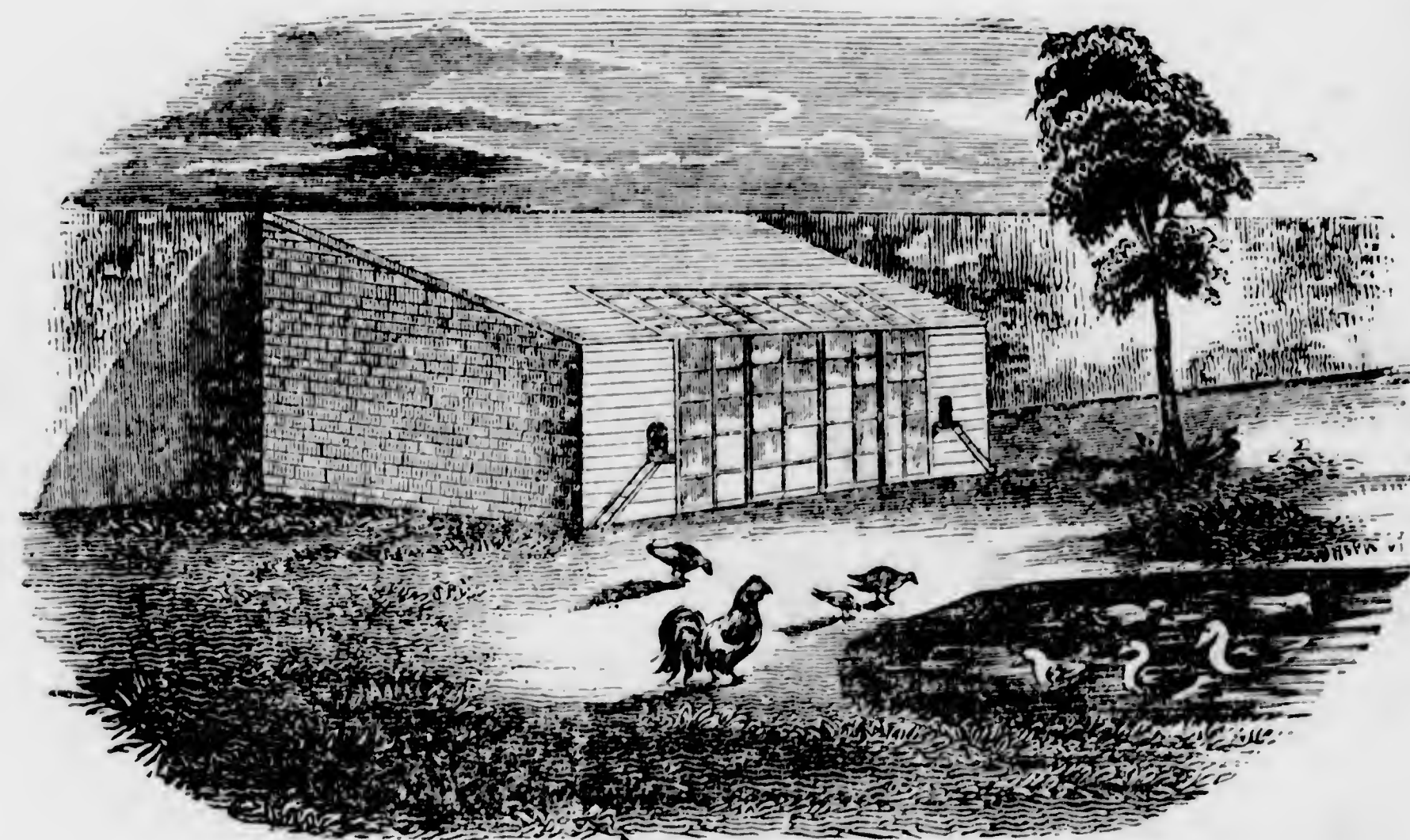
The roosts should commence on one side, at the top, near the plate, and slope downwards, at an angle of about 45 degrees, like a ladder, to within eighteen inches of the floor. The spars for the roosts should be about two inches square, with the corners taken off, and placed eighteen inches apart horizontally, for the fowls, and at least two feet for the turkeys, so that they may not incommode one another by their droppings. No flying is necessary in this form of a roost, as the birds ascend and descend by steps. It is recommended by some writers, to have the spars or cross-pieces for roosting, of sassafras, two inches in diameter, with the bark on, which is said to be a protection from vermin—in which, however, we have no faith.

The lower story is designed for the laying and hatching apartment. When we first erected our poultry house, we tried ranges of boxes similar to those generally made for pigeons, placed against the sides of the walls for nests—but experience, the best of teachers, proved it was erroneous, especially when hatching; for when the setting hen left her nest to procure her food, drink, &c., one of the other hens would spy the eggs, and pop in and lay her egg. In the mean time, the hatching hen would return and find her nest occupied; and finding it no easy matter to eject the intruder—as possession, with hens, like men, is considered nine points of law—would seek the first nest she could find with eggs, and settle herself there very contentedly. The consequence was, the other hen, after depositing her egg, would leave the nest, and the eggs would cool and spoil. There is another difficulty. If vermin should make their appearance, there is no way of getting at them or

cleansing the nests; to remedy this, we had separate boxes made and hung around the sides, and placed in the corners, which can be removed when hatching, or cleaned and freed from vermin when necessary.

The foregoing plan, though “rather costly,” as the author remarks, is very complete in its arrangements. We had a building erected from this design—90 feet by 13, brick walls, shingle roof, plastered inside, the wood-work thoroughly coated with Chester county mineral paint, and the establishment furnished with laying boxes and feeding-hoppers, after Mr. Bement's designs, as described below—the cost of the whole being \$500. The “storm-saloon” has some seventy feet of glass front, the temperature in which, without artificial heat, averages about 40 degrees in ordinary winter weather. During the extreme cold of last winter, when the mercury ranged at Zero, the water in the saloon was frozen. Along the back wall of this saloon we have a row of laying-boxes, fifty in number, which will accommodate at least 300 hens, as they prefer laying several together in the same nest. This building will accommodate about 500 fowls—we have some 400 in at present, without being at all crowded.

The “New York Poultry House,” figured below, of the same capacity, can be erected at one fourth the cost, and will answer every purpose for those who are not disposed to indulge in a more “fancy” establishment.



NEW YORK POULTRY-HOUSE.

After detailing the conveniences and manner of construction of several establishments, we come now to a very simple, complete, and to our mind, a very efficient fowl-house, as given by a correspondent under the signature of H., in the American Agriculturist. The writer says, “The accompanying plan and references render a particular description unnecessary. The north, east and west sides of the house are of brick; the floors are of cement to keep out rats.

"Fowls will not lay well in winter, unless they have during the day a dry, light and warm apartment in cold and stormy weather. The room marked C is designed for this purpose; it is lighted in

front and above by sashes, one of which, in front, is hung with hinges for the entrance. If necessary, a ventilator may be added to the roof, or a window in each end."

Fig. 19.

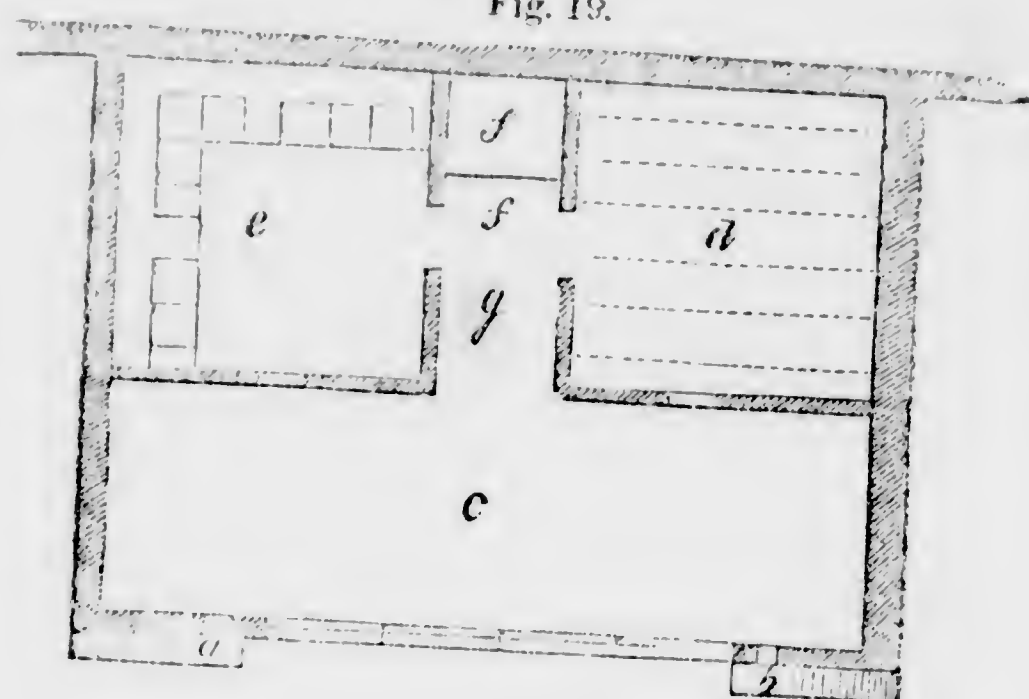
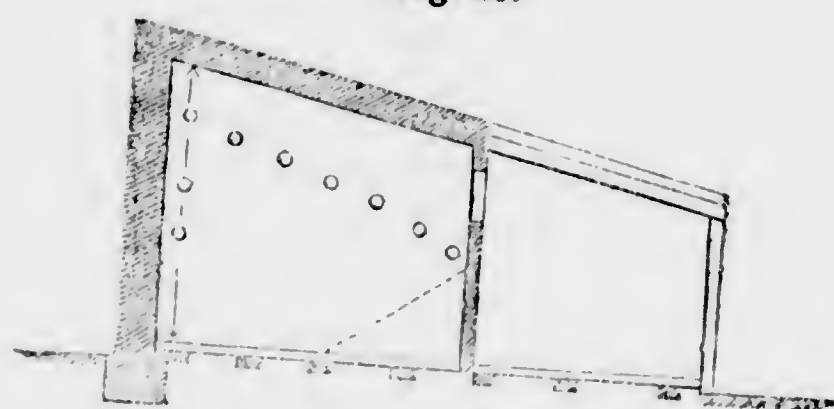


Fig. 20.



EXPLANATION.

Fig. 18. Elevation.

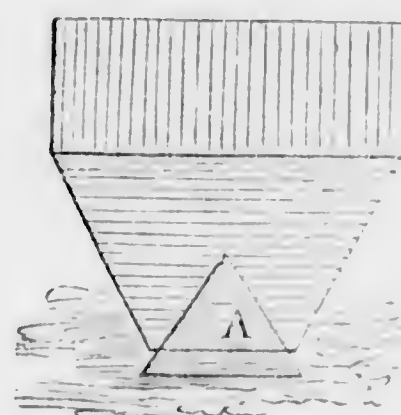
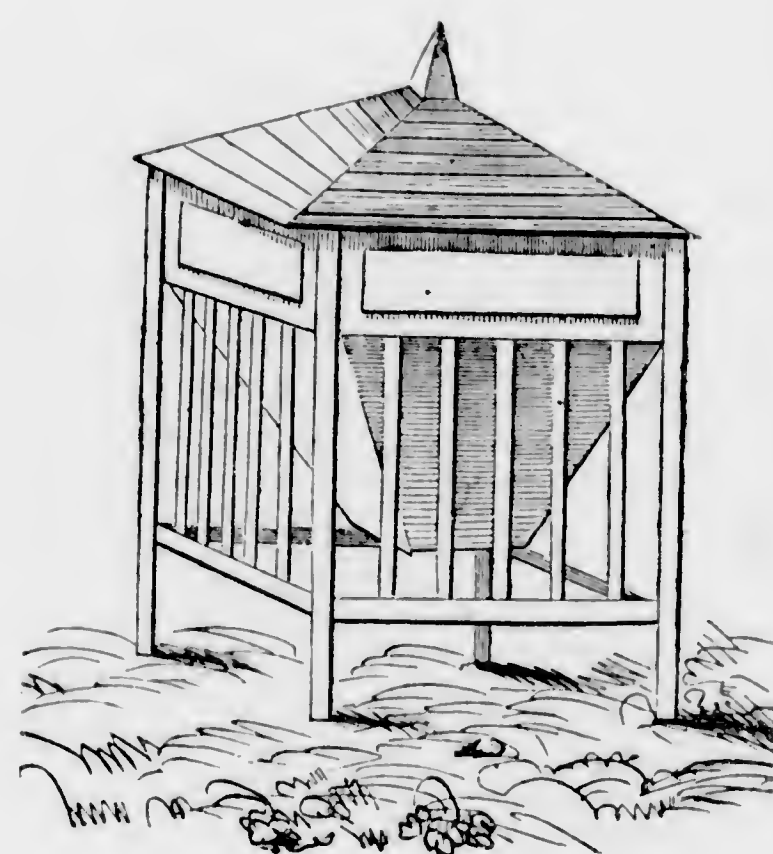
Fig. 19. Ground plan—*a, b*, apertures for admitting fowls, with slides for closing; *c*, place for feeding; *d*, roosting-room; *e*, laying-room with secluded nests; *f*, bin for feed; *g*, passage.

Fig. 20. Section through *a*, showing the position of the roosts.

FIXTURES FOR THE POULTRY HOUSE.

The house being completed, the next important matter is the necessary fixtures for feeding, laying, &c., &c.. "Some farmers," says the author, "are in the practice of feeding their fowls from the hand, strewing it over the ground, while others throw down corn in the ear, in a heap, and permit the fowls to help themselves. This, however, is considered a wasteful and slovenly mode, and well calculated to invite rats and mice.

We have found it more economical to keep grain constantly before them, and for that purpose adopted feeding-hoppers or fountains. Before adopting any plan, we examined several works of poultry, but did not find any to our liking; we then looked into London's Encyclopedia of Agriculture, and there found the desired object, but too complicated and costly for our purpose; we, however, took a hint, and constructed one ourselves, of which the following figure is a fair representation, which we exhibited at the Fair of the New York State Agricultural Society, held at Albany, in 1842, which excited some attention, and which the Committee highly commended, and honored us with a diploma.



This feeding hopper, as may be seen above, is four feet square, two feet each way—posts eighteen

inches long, and two inches square. The upper section of the box is six inches deep, and the sides are morticed into or nailed to the posts. From the bottom of this square, the slanting part or tunnel reaches to within half an inch of the floor, which should be six inches from the ground; the tunnel tapers from two to one foot; and in order to bring the grain within reach of the fowls, a cone, (Fig. A is a section) is placed in the centre, as much smaller than the hopper as to leave half an inch space all around, which conducts the grain to the edge, where, as the fowls pick the grain away, more will fall, and keep a constant supply as long as any is left in the hopper. The slats on the sides prevent the fowls from getting in or crowding one another. This fountain will hold two bushels or more of grain, and protects it from wet and in a measure from rats. It occupies but little room, and from sixteen to twenty fowls can feed at the same time.

To protect the grain more effectually from rats and mice, we would suggest that the posts be made some two feet longer, and a platform of boards, about one foot wide, placed round and fitted close up to the bottom, so that mice cannot climb up the posts and get in. This platform will be necessary for them to stand on when eating.

WATER FOUNTAIN.

"There should, if possible, be running water in the yard, as fowls, like some other bipeds of larger growth, prefer clean, pure water; and in order to prevent their drinking by chance what is bad or corrupted, stone or wooden troughs, or what is much better, a keg set on a stool, on end, with a small tube extending from the bottom to a shallow dish or pan, which should be small, so that the fowls cannot get into and soil the water." * * * *

PLANS FOR NESTS.

Suitable and attractive nests are indispensable accompaniments to the poultry-house. The author describes several plans, the most complete of which, in our opinion, is the following:

"The hen," says Mr. Bement, "is a prude, and likes to steal away in some sly place to deposit her eggs. To gratify their organ of secretiveness, the following ingenious plan for fixed nests we take from the 'American Poultry Book,' which, the author says, 'has lately been contrived in Connecticut, and I have tried with complete success. Hens are well known to be anxious to deposit their eggs in secluded places. The secret nests here alluded to are well adapted to satisfy this propensity. They are made thus:

Fig. 27.

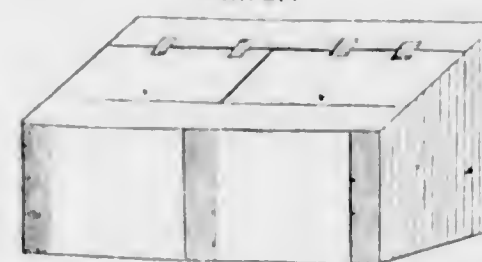
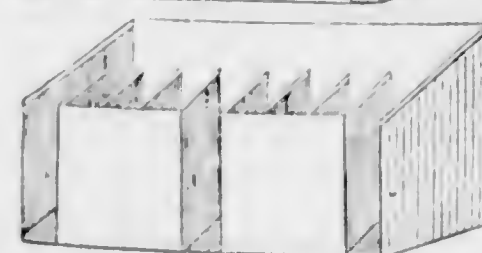


Fig. 28.



end eight or nine inches wide, and divide the remaining space inside the nests a foot square; this

leaves a passage way nearly a foot wide behind the nests. The top must slope from the wall, and open partly or entirely with hinges. These nests are easily examined, and give the fowls all the secrecy they seem to require. Fig. 27 shows the appearance of this series of nests when closed. Fig. 28 exhibits a view of the interior arrangement."

With these extracts, we must forbear further notice, at present, of this valuable work. We cannot part with it, however, without again recommending it to the attention of every farmer who designs "growing" poultry with an eye to profit. He cannot read the book "if he tries," without getting value received for his outlay in time and money.

This little volume is got up in the usual neat style of the Messrs. Harpers—to whose politeness we are indebted for the accompanying engravings—and is for sale at the book stores generally, we presume, and is also among the collection of agricultural works at the warehouse of P. Morris & Co., West Chester. Price, \$1.

Basket Willow.

The cultivation of Basket Willow in the United States appears, from the facts which have come to our knowledge, to be a subject deserving serious consideration. It is stated, upon the best information, that the value of the annual importation of the article into this country amounts to nearly five millions of dollars, and that large as the quantity may seem, it does not satisfy the consumption. The supply is derived from France and Germany, and the price paid here ranges from \$100 to \$130 per ton weight. There are three varieties of the plant regarded as best suited for basket making, farming, tanning and fencing. Of these, the *Salix Viminalis*, is most used in the manufacture of baskets, and, under favorable circumstances of soil and culture, an acre of ground will yield at least two tons weight per year, costing, when prepared for market, about \$35 per ton. The next species is the *Salix Caprea*, or Huntingdon willow, adapted for basket making, but more extensively employed by English farmers for hoop poles and fencing. When used for the latter purpose, the manner of planting is described to be "by placing the ends of the cuttings in the ground, and then working them into a kind of trellis work, and passing a willow withe around the tops, so as to keep them in shape for the first two years. The tops are afterwards cut off yearly, and sold to basket makers, thus obtaining a fence and crop from the same ground." The hurdle fences of England, removable at the pleasure of the proprietors, are also made from the *Salix Caprea*. The third kind of willow to which we have reference, is the *Salix Alba*, or Bedford Willow, which is held in high esteem as a shade tree, and very generally cultivated for this use in England. It is remarkable for its beauty and rapid growth—affording a good shade, it is said, in two years after planting. The bark is, also, much prized for its superior tanning properties, while its wood, from its fine grain and susceptibility of a polish as fine as that made on rosewood or mahogany, is in extensive requisition for shoemakers' lasts, boot-trees, cutting-boards, gun and pistol stocks and house timber. This, too, is the willow that is chiefly used in England in the manufacture of gunpowder. An acre

of the wood, after ten years from planting, has sold for £155.

As respects the practicability of growing in this country the willows enumerated, experiment by a number of enterprising farmers and horticulturists in New York and other states, has been made successfully on a small scale. The soil and climate of the United States are, in many places, favorable to the cultivation of the plant, and but little care is necessary to bring it to perfection. Those persons who have engaged in the enterprise, and have experience in the work of raising this species of vegetable for manufacturing purposes, assert confidently that it can be grown profitably in numbers of the States, at \$50 per ton weight. It is also said, upon well ascertained data, that there are hundreds of thousands of acres of lands here, either not improved at all, or yielding but a very small per cent. per annum, which could be made, by occupying them with the osier, productive of immense profits. On this point, an intelligent gentleman, who has a practical acquaintance with the subject, says:

"Every farmer will acknowledge meadow land to be poor that will not yield a ton of hay to the acre, which, when cured and in market, seldom sells for more than \$12. All men who are acquainted with the growth of willow for market, well know that an acre of land ought to yield at least one and a half tons weight of it. The cost of preparing willow for market would not exceed \$40 per ton. Now, estimating hay at \$12 per ton, and willow at \$120, deducting from the willow \$40 per ton for preparing for market, there is a balance in favor of the willow of \$80 per acre."

The feasibility of the cultivation in the United States, has been, hitherto, and very naturally, decided by importers, who have represented the crop to be liable to damage from flies, and have also alleged the price of labor to be too high to allow of fair, remunerating returns. In contradiction of this, we here cite the testimony of Mr. W. G. Haynes, of New York, who is occupied in the production of the willow for mechanical uses. He says:

"I have grown as good a quality of willow as is raised in any part of the world. That taken from two acres cut last year, yielded me, clear of all expenses, the snug little sum of \$333 75. If I had the means, I would purchase lands and plant thousands of acres of willow, and find a ready market for it."

To convince those who have not investigated the subject, of the lucrative nature of the trade, it is sufficient to state that the large importation of basket-willow, made during last summer, by four or five houses in New York, was not equal to even half the demand, which is increasing every day. Furthermore, it has been discovered by one who has industriously collected the statistics, that the amount of money paid for willow baskets alone, in the city of New York, exceeded \$1,000,000, and that the sum paid for baskets shipped to the Southern and West India markets probably reached \$2,000,000 more. These facts are certainly important, and well worth the reflection of men who are properly situated for embarking in a business which, in all points of view, promises advantages so decided and great. The native product would always command a sale here, in preference to that imported, by reason of the cleanliness of the crop, and its freedom from bruising and breakage occasioned by packing in a ship's hold, not to mention that the imported article is the mere refuse of the foreign crop, which is generally carefully picked by the French and German basket-makers, who retain the best qualities for their own manufac-

ture into fabrics subsequently exported to this country.

Besides the inducements which an extensive domestic demand for the willow holds out to our agriculturists, Great Britain annually imports from the continent a large quantity of it, and there is no reason why producers of the raw material here should not supply the consumption of England as well as of the United States. In short, the project of cultivating the *Salix Viminalis*; and other species of the plant adapted to manufactures, appears worthy to claim the earnest attention of the American farmer; and, in view of the obvious rewards which it would yield his labor and capital, we are surprised the subject has not long since been discussed in the agricultural societies of the land, and tried thoroughly by liberal and enlightened experiment. It is not yet too late to render it a valuable source of private and national revenue.

Distinguishing Characters of Soils and Subsoils.

Beneath the immediate surface of soil, through which the plough makes its way, and to which the seed is entrusted, lies what is commonly distinguished by the name of *subsoil*. This subsoil occasionally consists of a mixture of the general constituents of soils naturally different from that which forms the surface layer—as when clay above has a sandy bed below, or a light soil on the surface rests on a retentive clay beneath.

This, however, is not always the case. The peculiar characters of the soil and subsoil often result from the slow operation of natural causes.

In a mass of loose matter of considerable depth, spread over an extent of country, it is easy to understand how—even though originally alike through its whole mass—a few inches at the surface should gradually acquire different physical and chemical characters from the rest, and how there should thus be gradually established important agricultural distinctions between the first 12 or 15 inches (the soil), the next 15 (the subsoil), and the remaining body of the mass, which, lying still lower, does not come under the observation of the practical agriculturist.

On the surface, plants grow and die. Through the first few inches their roots penetrate, and in the same the dead plants are buried. This portion, therefore, by degrees, assumes a brown color, more or less dark, according to the quantity of vegetable matter which has been permitted to accumulate in it. Into the subsoil, however, the roots rarely penetrate, and the dead plants are still more rarely buried at so great a depth. Still this inferior layer is not wholly destitute of vegetable or other organic matter. However comparatively impervious it may be, still water makes its way through it, more or less, and carries down *soluble organic substances*, which are continually in the act of being produced during the decay of the vegetable matter lying above. Thus, though not sensibly discolored by an admixture of decayed roots and stems, the subsoil in reality contains an appreciable quantity of organic matter which may be distinctly estimated.

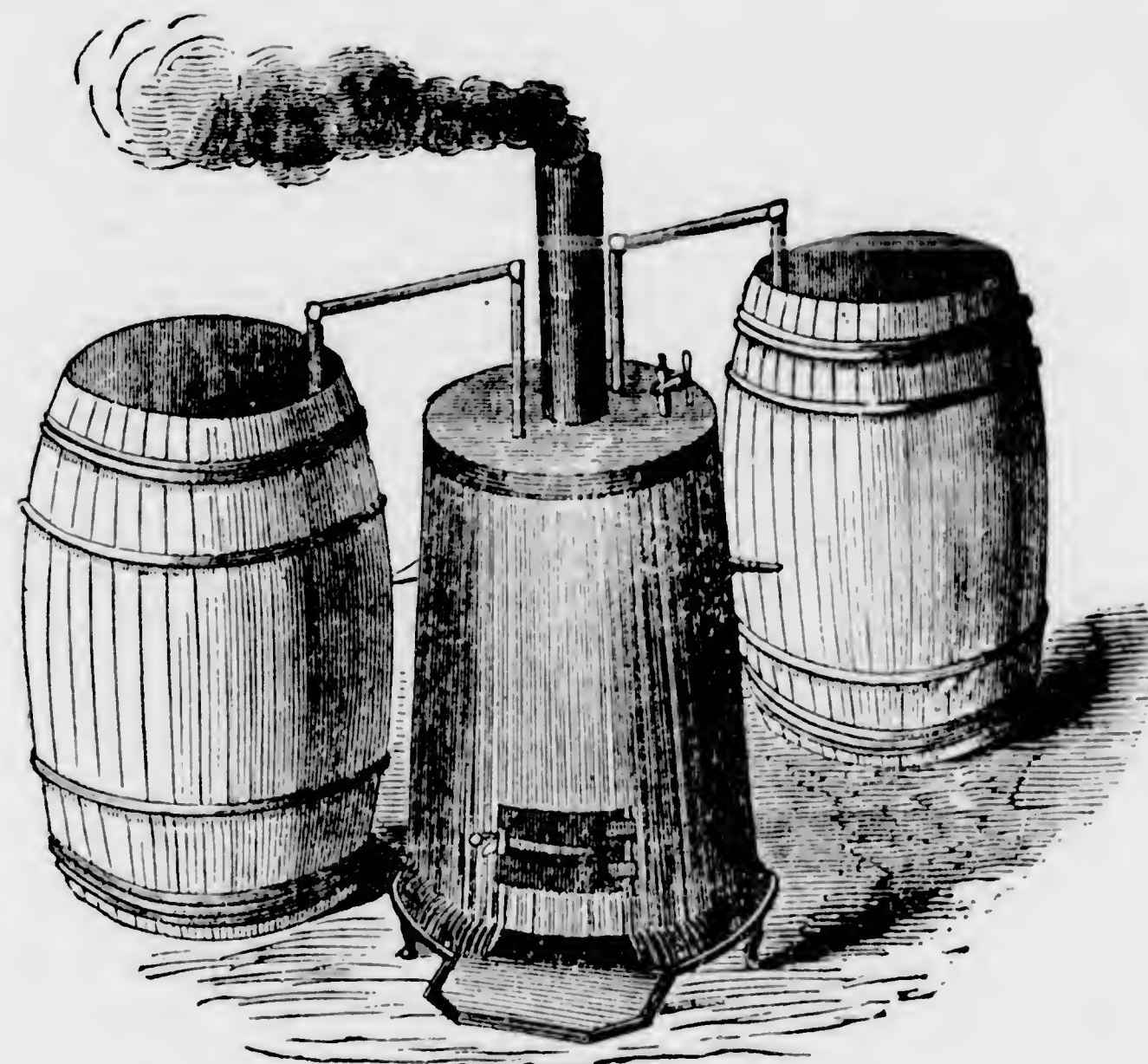
Again, the continual descent of the rains upon the surface soil, washes down the carbonates of lime, iron and magnesia, as well as other soluble earthy substances—it even, by degrees, carries down the fine clay also, so as gradually to establish a more or less manifest difference between the upper and lower layers, in reference even to the earthy ingredients which they respectively contain.

But, except in the case of very porous rocks or accumulations of earthy matter, these surface waters rarely descend to any great depth, and hence after sinking through a variable thickness of subsoil, we come, in general, to earthy layers, in which little vegetable matter can be detected, and to which the lime, iron, and magnesia of the superficial covering has never been able to descend.

Thus the character of the *soil* is, that it contains more brown organic, chiefly vegetable, matter, in a state of decay—of the *subsoil*, that the organic matter is less in quantity and has entered it chiefly in a soluble state, and that earthy matters are present in it which have been washed out of the superior soil—and of the *subjaacent mass*, that it has remained nearly unaffected by the changes which vegetation, cul-

ture, and atmospheric agents have produced upon the portions that lie above it.

From what is here stated, the effect of trench and subsoil ploughing, in altering more or less materially the proportions of the earthy constituents in the surface soil, will be in some measure apparent. That which the long action of rains and frosts has caused to sink beyond the ordinary reach of the plough is, by such methods, brought again to the surface. When the substances thus brought up are directly beneficial to vegetation or are fitted to improve the texture of the soil, its fertility is increased. Where the contrary is the case, its productive capabilities may for a longer or a shorter period be manifestly diminished. —[*Johnston's Agricultural Chemistry*.]



Farmers' Boilers.

We insert engravings of two patterns of boilers for boiling and steaming food for stock, with the results



below of some experiments, showing the advantages of cooked over uncooked food. They may be obtain-

ed at any of the agricultural warehouses, at prices varying from \$6 50 to \$25 00, according to size. This mode of preparing food for stock, is part of the *improved* system of farming, which farmers *must* come to, if they regard their own interests. There is no doubt about this. It is only a question of *time*. The sooner it is adopted, the greater the profit.

Cooked Food for Cattle—Value of Roots in Fattening Cattle, etc.

WESTON, SOMERSET CO., N. J.,

March 8th, 1850.

PROF. MAPES—Dear Sir:—Enclosed you have an account of my recent experiment, made at your request, in feeding cattle with *cooked feed*, &c.

I selected two pair of cattle from among eight pair, which were similarly conditioned, and which I had

fed alike, and for about the same time. They were weighed on the first of January:

No. 1 weighed	1620 lbs.
No. 2 " "	1750 lbs.
No. 3 " "	1670 lbs.
No. 4 " "	1510 lbs.

Nos. 1 and 2 were fed during January on 9 lbs. of corn and oats, (not ground) in the proportion of 9 parts corn to five parts oats by measure, and boiled in a three barrel kettle, in which was placed thirty six gallons of water, one and a half quarts of salt, and about seven bushels of grain mixed as above—boiled this mixture for two hours, using an armful of dry wood, and two bushels of corn-cobs as fuel. I then cover the kettle, placing over the cover a horse blanket, keeping in the steam and preventing too rapid cooking, and by this means the contents of the kettle will remain warm and soft until fed out.

Nos. 3 and 4 had 10 lbs. of ground feed, mixed in the same proportion of oats and corn, (but not cooked,) each day. In every other particular, all four were fed alike—each pair having a small quantity of carrots and turnips each day, with as much common hay and corn stalks as they choose to eat.

On the first of February they were again weighed.

No. 1 weighed	1725 lbs., having gained	105 lbs.
No. 2 " "	1850 " "	100 " "
Weight, February 1st,	3575 lbs.	
Weight, January 1st,	3370 lbs. gain in 1 month,	205 lbs.

Nos. 1 and 2, it will be recollected, had cooked food during the month of January, and gained 205 lbs.

No. 3 weighed	1750 lbs., having gained	80 lbs.
No. 4 " "	1550 " "	40 " "
Weight, February 1st,	3300 lbs.	
Weight, January 1st,	3180 lbs. gain in one month,	120 lbs.

Nos. 3 and 4 were fed on *raw feed ground*, and one pound per day greater in quantity than that fed to Nos. 1 and 2, (not ground, but cooked,) and still, although in every other particular they were fed and cared for alike, the difference in favor of cooked feed is very large. The expense of grinding being greater than the expense of cooking, the economy is every way in favor of the cooked feed.

Gain with cooked feed,	205 lbs.
Gain with raw feed,	120 lbs.
Gain in favor of cooked feed,	85 lbs.

On the first of February I ceased to use turnips and carrots, and substituted best clover hay for common hay and corn stalks.

Fearing the great difference in favor of cooked feed might arise in part from the peculiarity of the cattle, particular state of health, or some other accidental cause, I now changed them, and put Nos. 3 and 4 on the cooked feed, and Nos. 1 and 2 on the raw feed, increasing the quantity of feed to each pair, one pound.

Previous to commencing the experiment on the 1st of January, each pair had been accustomed to use some roots, pumpkins, &c., and this may account for the change I am about to describe after a discontinuance of the roots.

From the 1st of February to the 1st of March, Nos. 1 and 2 were fed on ground raw feed, Nos. 3 and 4 on whole cooked feed.

On the first of March they were weighed again, when

Nos. 3 and 4, on cooked feed, had gained but	47 lbs.
Nos. 1 and 2, on raw feed,	22 lbs.

It will be seen from the above, that although the cooked feed at least cost continued to produce most growth, and in about the same relative proportion, still each pair, when fed with roots in addition, gained much more rapidly than when fed on grain and clover hay alone.

I would remark, that 16 lbs. of corn and oats in the proportion before named, will weigh, when cooked, 34½ lbs. If you think the above would be useful to your readers, you may publish it in the—*Working Farmer*.—JAMES CAMPBELL.

Who are the Practical Farmers?

From the London Farmer's Magazine, we copy some extracts from an address by J. C. Nesbit, which we think is entitled to consideration and attention:

Mr. Chairman and gentlemen, I feel very highly gratified at seeing such a numerous assemblage of gentlemen interested in the progress of agriculture, and I shall feel very great satisfaction this evening in endeavoring, as far as I possibly can, to elucidate the science of agriculture with reference to the application of chemistry to its development. I am now come down to you with a vast amount of chemical apparatus; I have not brought here a prodigious number of curious things, of which you might have wondered what was their use. I come to you this evening with the language of plain common sense, and with the operations which you are continually performing on your farms as the basis of my arguments, I shall see if I cannot, by applying to them the rules of plain common sense, elucidate the subject, and secure to you a greater knowledge of the science of agriculture than you already possess. Before doing this, however, I must make one or two observations. And, gentlemen, I must, in fact, quarrel with you, because you arrogate to yourselves alone what I think you ought not to claim for yourselves alone—the title of *practical men*. "We, we, we," you say, "are the practical men," as if there were no other practical men in the kingdom besides yourselves, and as if no one else understood the nature of things. Now, I mean to contend that the title "practical" does not belong to the farmer alone; and I have certainly some doubt whether it ought to be applied to the farmer at all, in its full signification. I will take, for example, the case of Mr. Tomkins, who is a capital farmer. He farms his land well; he keeps stock and grows turnips, and does every thing in the best manner. Now, as a poor student in science, I want to gain from this gentleman some useful practical information. With this object in view I say to Mr. Tomkins, "Pray, what have you got in your soil—what are its properties?" He replies that it is a sandy soil, a loamy soil or a clay soil. "Yes; but what have you got in the one and what in the other?" "I don't know; I have not gone so far as that yet." I then ask, "What have you got in your manure?" And Mr. Tomkins, good, easy, practical man as he is, says, "I cannot tell you." If I ask him what his crops take out of the land, again he declares that he cannot answer my question; he knows that they take away something; he knows that if he sows wheat, barley, or any thing else, something must be taken away by the crop; but what that something is, he cannot determine. Lastly, if I ask Mr. Tomkins what is in the air and what is in the water, he is still obliged to confess that he does not know. Now, gentlemen, I appeal to you whether the term *practical*, in its largest sense, will apply to Mr. Tomkins, while he actually knows nothing whatever of those things on which the success of the agriculturist particularly depends. I grant you that Mr. Tomkins looks at his crops, manures and soils, in the whole, and that he has got some general idea of them as a whole; but then he never seriously considers what this whole

FEBRUARY

1853.]

is composed of; and what I propose to do is to extend his knowledge a little further; so that, instead of his attention being confined to those generalities on which it has hitherto been fixed, he should be made acquainted with every thing in the soil, in the crops, in the manure, in the air and in the water. (Hear, hear.)

Now, I ask you, gentlemen, as practical men, to say whether you consider that this knowledge would not be worth having, and whether it would not be well for every man, as far as it may be in his power, to seek to attain such knowledge. Well, now, having thus prefaced my subject, I shall at once commence the consideration of the manure made on the land; and I shall afterwards offer a few observations on the rotation of crops, and the nature of those substances which are offered to the farmer, under the name of artificial manure. And let me here observe that I shall be very happy, at the close of the lecture, to hear any remarks, or to answer any questions which may occur to any one present, having reference to any thing which I may have said; for some of the things which I intend to present to your notice may be so new, and so contrary to ideas previously impressed on your minds, that you may doubt the truth of my statements; and the best way to settle any question of that kind is to argue the point at the close of the lecture. (Hear, hear.)

Let us begin with the far-famed farm-yard dung, which is supposed to be so superior to all other things. It is that which grows the crops, and which, in the estimation of the farmer, is not surpassed by any possible combination of substances. Now, what is this farm-yard dung? It is formed by acting upon vegetable matter in some other way. You either take the stomachs of animals, where it is acted upon and the refuse passed out, or you put vegetable matter, as straw or litter into the yards, and allow the excrements of animals to be mingled with it, and a slow decomposition to take place. The whole being commingled and mixed together is known by the name of farm-yard dung. Now, a very little consideration will show that the whole of the material which is found by you, gentlemen, to be practically so useful on the farm, is merely derived from vegetables; so that you are, in fact, applying the remains and refuse of vegetables to renovate the land. This is the whole secret of farm-yard dung; it is vegetable matter, which, when partially decomposed, is re-applied to the land, where it forms vegetables over again; so that you are continually working, as it were, in a circle. Thus, the same particles of matter imported on the farm, perhaps in the shape of oil-cake, first re-appear in the shape of a turnip, again as barley, now as beet-root, now as wheat—the cycle of changes continues until the identical particles are exported from the land as beet or mutton or as grain. Now I hope I shall be able to offer one or two ideas with respect to the origin and nature of this farm-yard dung; and let me say we can never have our ideas too near the truth respecting the origin and nature of that which is so constantly under our notice. Some gentlemen have got an idea that animals have a mysterious power; of what nature, it is impossible to say, but they imagine that it really exists; a mysterious power, by means of which they can change a turnip, or a quantity of oats or greens, into a superior manure for land; and that food must have passed through the animal before it can be really useful on the land. That is the idea entertained on this subject by ninety-nine farmers out of a hundred. I must proceed this evening to disabuse your minds of that erroneous

notion; I must inform you that the manure obtained from animals is always dependant, as regards its value, on the food which the animal eats, and that the excrements of animals are always less valuable, and less powerful in manuring principles, than is the food consumed by those animals whilst producing the manure; the green food, plowed into the land, will give more manure to the land than the same food eaten by the animals. Not that I would recommend you, as a rule, to plow in your vegetables; but I wish you to remember that your sheep can deposit nothing on the land but what they first received from the food; and that, under all circumstances, the amount deposited will be less than that received. Now let us look a little at this point. You know that in one of our ordinary fire-places, when coals are put into the grate and a light is applied to them, an action takes place which makes the air above differ from that below the fire; without any mention of the name of a single chemical element, you have only to apply your plain common sense in order to be aware that an action takes place between the air and the coals, producing heat, and that the air above the coals, (in the chimney,) is very different from the air below the coals, which enters at the grate. Now, you give an animal a certain amount of food; that food is taken into the system: the constant action of the lungs, which inspire and expire the air, has the effect of bringing into the system a large amount of air. This air acts upon the food which is taken into the system. By the combustion or burning of a certain amount of that food, animal heat is produced, which keeps up the temperature of the animals, so that they get a higher temperature than the surrounding atmosphere. The expired air contains the result of that combustion, and resembles in composition the air of the chimney; another portion of food not used for producing animal heat is laid upon the bones, forming muscles, or fat; and what the bullock itself has no use for, is cast out of the system. Now, you observe at once, that the animal, by acting in this way on the food, actually deprives it of certain constituents, and at the same time makes it less in amount; so that, in fact, the only real action is one which takes away certain portions of the food, and renders the others more quickly soluble. All the soluble parts of the food are passed out in the urine, and all insoluble parts in the excrements. There is a regular process performed in the laboratory of the stomach, the effect of which is what I have thus described.

Now, the same thing takes place in the decomposition of vegetable matter. You lay down a large quantity of straw, and you let the water fall upon it, as well as the excrements of animals. You all know what takes place. The heap gradually heats, and this gradual heating is nothing more than the effect of the gradual action of the air upon it. Certain portions of the vegetable matter thus acted on by the air are consumed and taken away, and the bulk becomes less; so that, even in the process of acting on vegetable matter, you lose a portion and it goes off into the air, just the same way as the solid parts of coals pass into the air by means of the chimney. You all know that the solid parts of coal disappear and leave nothing but ashes behind. The two cases, are, in fact, identical. I may refer you to the case of a hay rick, put up in too damp a state. In that instance, an immediate action takes place from the contact of the air with the moist hay, and that action continues increasing, until, at last, the whole bursts into a flame. Now, gentlemen, in either case, in making manure there is a diminution and a loss.

You must have seen the reek going off from the dung-heap, and there are other substances which also disappear in the air which you cannot see.

[TO BE CONTINUED.]

Green Crops for Plowing Under.

The great feature in the modern system of improving light soils is the use of green crops for plowing under.

That I may not be misapprehended by farmers in this district, it is necessary here to say that when speaking of the green crop system, I mean both the crops that are plowed while green during summer, and those that are left until the ensuing spring and then plowed in dry. It is in both cases an improvement by the use of green crops, there is only a difference as to the time of plowing in.

Vegetable matter serves many of the purposes of clay in retaining moisture, and preventing the escape of fertilizing substances. Thus many soils which contain little clay, are yet very fertile, because a large portion of them is vegetable in its origin; such are some of our rich garden moulds, or drained swamps.

Green cropping fortunately enables us to supply the deficiency of vegetable matter much more easily and cheaply than that of clay; hence it has become a prominent feature in the management of every farmer who is desirous of greatly advancing the value of his land. The plants used as green crops are numerous, and speaking of the theory or theories connected with their operation, I may properly devote a few words to the mention of those varieties which are most important in this and other countries. Here, at least in the Northern States, almost the only green crop employed is clover. The properties and appearance of this plant are so well known as to require no description. Upon most soils it is easily grown, and in those where it does not thrive naturally, skillful manuring will generally bring it in. More would be gained by plowing under the crops of two successive years than in any other way, but this plan would not work well on most soils, and there are few farmers who would be willing to let land be idle so long as this while it would bear any thing at all. Many prefer to go on cropping until they can scarcely get their seed back, and then are obliged to let the land lie idle for a series of years in place of one or two, until it has regained strength enough to bear another scanty crop. Many, too, are unable to resist the temptation to cut and carry away the clover if its growth is heavy. Their intentions are good early in the season, but as haying time approaches they begin to think of the two or three tons per acre of hay which might be obtained by cutting, and finally the advantages of present gains more than counterbalances the prospective improvement of land. They afterwards plow in the rowen, it is true, but that cannot make up for the far heavier growth of which they have already robbed the soil. Some excuse themselves by saying that so large a crop cannot be got under, but it is not so, for this can be done by going over the surface with a heavy roller, in advance of the plow, and the clover then lies flat, and a plow with a sharp coulter has no difficulty in turning it over completely. Others recommend a heavy chain hung from the plow beam so as to drag the clover down before the plow share reaches it. On the light soils of which I speak, these precautions will probably be needless for some time to come.

There are some soils where even a scanty yield of

clover can only be obtained after much trouble and expense; on these it is best to commence by the cultivation of some plant more particularly suited to such situations.—*Prof. J. B. Norton.*

The Cocoa Nut Tree.

Mr. Treloar, of Ludgate Hill, London, the cocoa-nut fibre manufacturer, has published an interesting pamphlet, showing the uses to which the various parts of the cocoa-nut tree are applied. The purposes of utility to which this tree may be put are very numerous. The Cingalese have a saying, "that it has ninety-nine uses, and the hundredth cannot be discovered." From the full grown leaves are formed mats, carpets, baskets, sails, tents and liquid measures. The cocoa-nut oil yearly imported into England, is valued at £100,000. By means of mechanical processes, secured by patent, the value of cocoa-nut fibre has been much increased. It has been found suited for the production of articles of great utility and elegance of workmanship. A Great Exhibition prize medal was awarded to Mr. Treloar for the best specimens of matting, mats, brushes, mattresses, and other articles made of cocoa-nut fibre.—*Scientific American.*

Original Communications.

For the Farm Journal.



Galleria Cereana. (Bee Moth or Wax Moth.)

Belongs to a Lepidopterous group called (Crambidae) or Crambians. This insect, which was probably introduced into this country along with the hive-bee, (*Apis mellifica*), is one of the greatest, if not the very greatest enemy that that industrious and useful little creature has to contend with. Notwithstanding that bees are well armed with instruments of defence, sufficient, too, to resist the attacks of more formidable enemies, yet so insidious, so determined, and so persevering is the progress of the larvæ of the bee-moth, and so destructive is its ultimate character, that the legal occupants of the hive are often compelled to desert it, and yield it up to these pernicious intruders altogether. The bee-moths were known to the ancients under the name of *Tinea*, and were noticed in books of husbandry by Virgil and others, hundreds of years ago. Linnæus, Kirby & Spence, and others, have mistaken the differences in the male and female, and accordingly regarded them as two distinct species, (*cereana* and *mellonella*), but for the sake of avoiding confusion, modern naturalists generally adopt the name given by Fabricius, (*Galleria cereana*).

One striking peculiarity in the habits of this insect, is, that it feeds upon a substance that is indigestible,

or affords no nourishment at all to other animals—namely beeswax. The female moth enters the hive in the evening, when the bees are at rest, and deposits her eggs; or if from the crowded condition of the hive, she finds it impossible to enter, she is content to deposit them on the outside.

As soon as the feeble little thread-like worm is excluded from the egg, it begins to spin for itself a little silken tube, in which it shields itself from the attacks of the bees, and thus passes safely and unseen in every direction through the waxen cells, which it breaks down, devours and destroys. It generally pursues its work of demolition in the night, or in dark cloudy weather, when it can do so unseen.

In three or four weeks, accordingly as circumstances are favorable or adverse, these larvæ attain their full size, which is about one inch in length more or less, accordingly as they have been well or sparingly fed. They then spin themselves up into a strong silken follicle or cocoon, an inch or more in length, and of an oval shape. These pods may sometimes be found in large clusters in the upper part of the hive. In about two weeks from the time they have spun, they evolve from the pupa state and come forth a moth, measuring across the expanded wings nearly one and a half inches; of a dusty gray color; the fore wings are more or less glossy, and streaked with purple or brown on the outer margin, with a few dark spots near the inner margin. The hind wings are yellowish grey, with whitish fringes.* The female is larger than the male and darker colored. In a state of rest, the wings close flatly on the top of the back, deflexed at the sides, and turn up a little at the ends; the insect then measures about three-quarters of an inch in length. Two or more broods usually succeed each other in one year, the first appearing the latter end of April, or beginning of May. When the transformation to the pupa state takes place in the fall, they remain in that state all winter, and the moth evolves in early spring.

The moth usually hides in chinks and crevices about the bee-hives during the day, and comes forth at night.

The only sure method for the extermination of the Bee-moth is the frequent examination of the hive, and the destruction of the caterpillar or larvæ, and the chrysalids. Warm, dry weather seems to be the most favorable for the production of these moths, especially in the months of August and September. Their presence is generally indicated by a deposit of fine powder-like excrement on the bottom of the hive.

As the perfect moth is fond of anything sweet, a vessel placed near the bee-house, containing a sweetened mixture, in the evening, may attract many of them, and thereby drown them.

S. S. R.

Theory of the Action of Lime used in Agriculture.

[CONTINUED FROM PAGE 230.]

For the last two months I have been unable to continue to furnish to the readers of the Journal my views of the action of lime when applied to the soil. I was obliged to visit the city of New Orleans on professional business. Although this is far from being my first visit to the sunny South, yet I this time made some observations during my journey, which I intend, in course of time, to offer to your readers.

We, in the November number, considered the action of lime strictly in a chemical point of view, and I trust that nothing was put forth that cannot be substantiated by the acknowledged laws of chemistry. Nothing was required of the imagination, and everything therein so accords with the results, which the experience of the farmer has taught him to expect, that he even might say to himself, "why did I not think of that before?"

Every farmer will tell you that lime acts so like a coat of manure, that he cannot tell the difference. You will be told that a coat of lime will increase the crop, and render worn-out land fertile. When this phenomenon is the result of the application of lime in the caustic state, and follows immediately after the application, depend upon it the land is not deficient in vegetable matter, but having been deficient in caustic and carbonate of lime, the vegetable acids formed by the decomposing vegetables, had accumulated to an extent sufficient to be injurious as an anti-septic. These acids removed by the lime, left the soil at least free from any injurious matter. But if instead of applying it in the caustic state, it had been applied in the form of a carbonate, the same beneficial effect would have resulted, and over and besides, the carbonic acid set free from the lime, would have been equally beneficial to the crop, as though it had been furnished by the decay of manure.

If on the other hand, we do not perceive immediate benefit from the application of lime applied in the caustic state, but such benefit is found to accrue to subsequent crops. In this case the land did not contain sufficient acid to be of any sensible injury, and the land not being very replete with vegetable matter, no apparent change took place until the lime was carbonated. This once the case, the lime by yielding its carbonic acid, came to the aid of the decaying vegetable matter, and there was a consequent increase in the productiveness.

In my opinion, the existence of a certain quantity of lime in the soil, is a sine qua non. Without lime the process of eremacausis will soon be arrested, and no valuable plant can be cultivated. I make no doubt that other alkalies might be substituted, so as to render small experiments successful, but the alkaline carbonates, are, generally, too soluble to remain

*Har. Treatise, p. 360.

long in the soil without being washed away, and such other than the carbonate of lime, as are not so soluble, are in themselves of a nature injurious to the plant. Very little lime is needed to perform this important duty.

I have often remarked with what seeming confidence some of the learned gentlemen who undertake to analyse a sample of soil for the sum of five dollars, to be paid by a confiding farmer, report the result of their labors, and then vouchsafe to give their advice founded on the analysis. In the April number of 1852, of the Working Farmer, is contained one of those singular productions from the pen of Prof. J. J. Mapes.

The learned Professor first states the result of the analysis as follows:

"Mr. —, WARREN, Somerset Co., N. J.

DEAR SIR:—The following is an analysis of your soil, made by Mr. W. H. Bradley, as per column No. 1. The necessary amendments are given under No. 2.

Analysis.	No. 1.	No. 2.
Organic Matter,	.60	10.
Silica,	87.12	
Alumina,	8.35	
Iron and Manganese,	2.10	
Lime,	.45	3.
Magnesia,	trace.	
Sulphuric acid,	.25	2.
Phosphoric acid,	.05	5.
Chlorine,	—	2.
Potash,	.07	3.
Soda,		4.
Carbonic acid,	.81	

You will perceive by the above that your soil is deficient of

- | | |
|--------------------|---------------------|
| 1. Organic Matter, | 4. Phosphoric acid, |
| 2. Lime, | 5. Chlorine, |
| 3. Sulphuric acid, | 6. Soda, |
| | 7. Potash. |

If we assume that an acre of ground contains 30,172 bushels of soil, each bushel weighing 90 pounds, we will have 2,715,480 lbs. of soil, and if it contains 45-100 of lime, we will have 12,200 lbs. of lime to the acre, (equal to 160 bushels.) But we see by the second column, that the learned Prof. has set down the required amount at 3-100, or in other words, at 81,464 lbs. We then must supply 69,264 lbs., which would be no less than 1,086 bushels of lime.

Experience has taught the farmer that a dose of fifty bushels of lime will be a sufficient dressing for almost any land. If such is the case, this soil already contains more than three times the required amount. By the analysis, this soil contains 162 bushels to the acre, and yet the learned Prof. says that lime is deficient.

The reader will perceive that no care has been taken, in making this analysis, to ascertain in what state this 162 bushels of lime already in the soil existed. No attention is paid to its state of combination. We have carbonic acid, .81, more than enough to saturate the whole of it. If this lime was then a

carbonate, surely any small addition such as is usually made, would not be of much utility. But here in is the difficulty. These examinations, (for I will not dignify it by the name of an analysis, when any gentleman devotes no more than five dollars worth of time and labor to it,) are entirely useless, and only calculated to lead persons into error. If the reader will add up the sum of the constituents, he will find that they produce 99.80, and that the learned gentleman reports to have found a trace of magnesia. This latter is to account for the 20-100 missing in the sum total. The operator must have acquired an extraordinary degree of exactitude in his chemical manipulations, to have been able to arrive at such a result, without compiling it from many trials, and averaging the errors. But at five dollars no man can make the salt that it would take to his bread, even to make one analysis of a soil, much less to make twenty, and by averaging the differences, be able to bring it out like a balance sheet, with nothing carried to profit and loss. To ascertain any proportion below 1-100, requires the most delicate kind of manipulation, and is attended with much labor, and can only be relied on when repeated trials have been made.

If the 162 bushels of lime already in this soil are insufficient, it is not because that amount of lime would not answer the purposes of agriculture, but because the lime was in combination with something that hindered it from subserving the purposes which I have already laid down in a former article. The gentleman who so positively lays down that it is deficient in lime, does not appear to have taken any of these matters into consideration. If I am correct in my views, the soil may require lime, notwithstanding the presence of even 3-100, provided such lime is combined so as to render it useless to the soil. But much less than one-half of one per cent. of lime combined with carbonic acid will be found to be sufficient. As to any man under the advice of a consulting agricultural chemist, being induced to put lime enough on his land to bring it to 3-100, I have nought to say, but that in my neighborhood it would make quite a sensation.

Some of the most fertile alluvial land in Ohio contains but a shade over one-half of one per cent. of lime, but this lime is a carbonate.

G. BLIGHT BROWN.

WEAVIL.—These troublesome pests may be kept out of grain by using salt. Sprinkle a little fine salt on the bottom and around the sides of the bin as you fill up, and over the top when full. Wheat kept in old salt barrels will never be destroyed by the weavils.—*Agricultor*.

The fat ox that took the first prize at the late Kentucky State Fair, weighed three thousand two hundred and fifty-two pounds.



PURE SOUTHDOWN BUCK.

Owed by Francis Rotch, Morris, Otsego county, N. Y.

We present our readers, with the above admirable specimen and correct copy from a daguerrotype likeness, of a pure Southdown Buck, lately imported, together with three Ewes of the same breed, by Joseph Cope of this county, for Francis Rotch, New York. They were all from the flock of J. Ellman, and having stopped here for a few days, previous to going to New York, gave us the opportunity of having the Buck daguerrotyped.

We are somewhat familiar with fine Southdowns, and had an opportunity some years ago, at the great Southampton cattle show in England, to examine some of their best specimens, but we have not the impression of ever seeing a more finished sheep in all the characteristic points of the Southdown breed, than the Buck now before us. The engraving we consider the best *unflattered* portrait of a pure Southdown, which has appeared in any periodical in this country.

Our friend F. Rotch, in a letter to us from which he has permitted us to make some extracts, says, "as you have seen the sheep, sent me by Mr. Ellman, any comment on my part is unnecessary. I requested him to send me specimens of his very best sheep, and I have reason to believe, that as a matter of friendship, he has done so, and I feel under great obligations to him for thus according to me, what money alone could not have procured. I have seen larger sheep, but I think I have never seen more beautiful or more finished specimens of the breed. A. Mr. Ellman remarks, I have yet to learn that size, accompanied by coarseness, is a characteristic of a

true Southdown." These sheep, on the voyage, were accompanied by an English Shepherd, through whose care they arrived in fine condition. In importations of sheep especially, this is the only safe plan, and is the cheapest in the end. It is useless to purchase abroad high priced stock, if they are to have only chance attendance and feeding during the voyage.—We lost some a few years ago, who died on the passage, which also happened to some of the large Oxfordshire sheep, imported by Messrs. Reybolds.

This importation of Downs, selected as they have been, with so much care, we consider quite an acquisition to the country.

Alice Maude Strawberry.

We publish two communications respecting this fruit, and refrain from any remarks at present ourselves, till we have heard from J. Slater, and obtained a particular description of its growth, habit and character of the blossom. We have also ordered some plants of him for comparison.

Owing to an accidental confusion of a few papers of our last month's issue with that of the preceding month, some of our subscribers received the wrong number in the January cover. Where such a mistake occurred, we should be obliged by being informed of it, when the correct copy will be immediately forwarded.

Several valuable communications have been received and will appear in our next, having been crowded out by the proceedings of the State Agricultural Society, at its late meeting at Harrisburg.

Horticultural and Floricultural.

For the Farm Journal.

Strawberry, Alice Maud.

EDITORS OF FARM JOURNAL:

In a paper like yours, we expect reliable authority, we can place none in these back woods where writers are as learned as the Botanists of England, and deem that the Strawberry belongs to a class of plants, that always blossoms perfect in male and female organs. From your correspondent's notice of the Alice Maud, I take it for granted, that such is his view. The Alice Maud, I have never seen. I am informed that it is of the Hermaphrodite character, and like the famous Keens Seedling, only valuable as an impregnator, where the sexual character is understood. Till recently, in England, Pistillate plants were unknown, and the result was, that their plants did not average one-half of a crop of perfect fruit. If the Alice Maud is always perfect in both organs, and produces a full crop of large perfect fruit, of good quality, it would be invaluable in England. They have never yet seen such a plant.

A CINCINNATIAN.

For the Farm Journal.

FLUSHING, Jan. 13, 1853.

J. L. DARLINGTON, Esq., Editor, &c.

I notice in your January No., a description of the "Alice Maud" Strawberry, by Mr. John Slater. That statement does not apply to the variety named, and he must have some other variety under the name designated. The "Alice Maud" has been most fully tested by Mr. G. W. Huntsman of this town, and myself. It is an early berry, of rather large size, dark color, lying on or very near the ground; the plant is very unproductive, producing usually but two good sized berries to a plant, and sometimes but one large berry.—It was cast out by every connoisseur here many years ago, as worthless for its barrenness; and this has been the case with every Hermaphrodite variety hitherto introduced from England. It would have been well if Mr. Slater had stated the sexuality of his Strawberry, as that might guide one in deciding upon its true name, and as I have a specimen Strawberry Garden containing every estimable variety that has yet been tested, he would be able to decide upon its true name by inspecting my Collection at the fruiting season. I am preparing an article for the Horticulturist descriptive of the characteristics of "The Strawberry," and shall enumerate therein all the varieties that are truly valuable, with descriptions, for it is full time that the trash should be exterminated, and that judicious selections based on sexuality should replace them.

Yours, very respectfully,

WM. R. PRINCE.

Dwarf Pear Tree on Quince Stock.



The annexed is a specimen of a Dwarf Pear Tree, of Louise Bonne de Jersey variety. We have before urged in the pages of the Farm Journal, this method of cultivating the Pear, and the annexed will give a fair idea of a dwarf tree in fruit.

It offers several great advantages over the ordinary mode on pear stock.

1st. They are more hardy, and less liable to blight.

2nd. Some varieties are of finer flavor and more perfect on the quince, such as Duchesse d'Angoulême, and White Doyenne.

3d. They come into bearing much sooner; generally the second season after they are planted, and often the first.

4th. They admit of close planting, eight to ten feet apart, and thus return much larger products for the space occupied, answering either for small gardens, quite close to the house, or extended orchard culture between other trees.

The roots of the quince are generally much more fibrous than those of the pear and do not extend so far, but draw their nourishment from a smaller space. They therefore require a rich soil and free cultivation. Short manure should be dug around their roots each fall. This will start them into vigorous growth, the following season, and by pinching off the young shoots to within three or four buds of their base, towards midsummer, fruit buds are soon formed and lateral branches, so as to give the true pyramid shape, and make a thickly set, compact tree. Instead of trimming up as is the usual custom, encouragement should be given to the little spurs to form in all parts of the tree. We have had two and three pears of full size on these little spurs coming out from the body of the tree, not more than an inch long. A small sized tree can thus be made to bear abundantly. The shape and height of the tree is entirely within the control of the cultivator, by the judicious pruning and pinching process. It may be kept at six feet if desired, and we have seen them 15 to 18. There is no more beautiful ornament for a lawn, than a pyramid pear tree well supplied with fruit.

It has been supposed that the Pear on Quince would be a short lived tree. When grafted on the Angers stock, this is found not to be the case, as trees are now growing in some parts of the country 25 years old, perfectly healthy and vigorous, and in England and France have reached 50 years, with no sign of decay.

Engravings of three Pennsylvania Seedling Fruits.

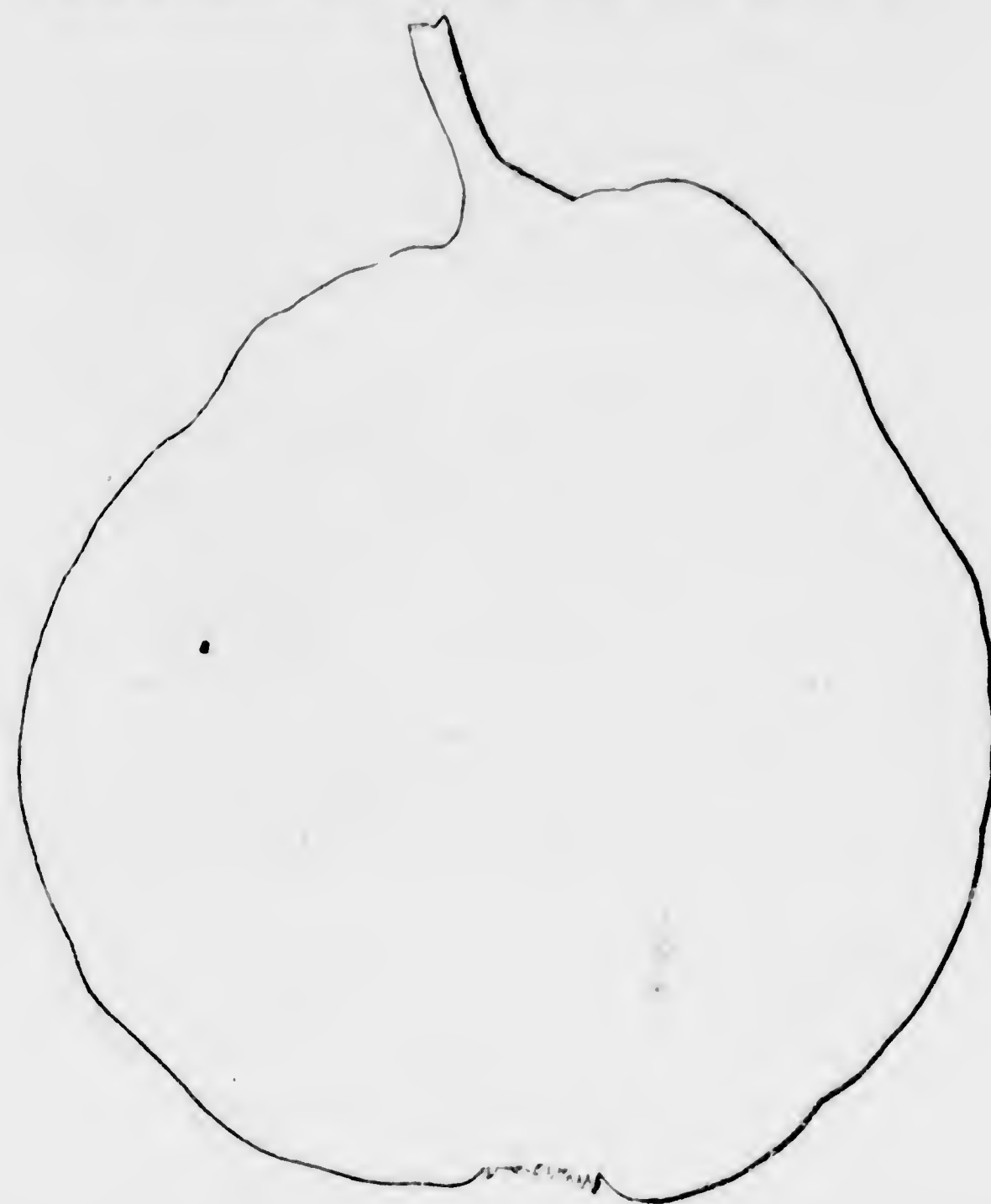


Fig. 1.

Fig. 1. Hosen Shenk Pear, engraved from a drawing by Dr. Brinckle. This Pear is a seedling raised by John Shenk, of Manor township, Lancaster county, supposed to be from the Virgalien or Butter. J. B. Garber, page 197, present vol. of Farm Journal, to whose article the reader is referred, says, "the tree is a vigorous and strong grower, far out growing the old butter pear, and in comparison with that fine old and now almost extinct variety, is superior in every respect; the tree is large and more thrifty, the fruit larger and if possible more luscious, and the tree a great bearer in a favorable soil and situation. It ripens from the middle of August to the middle of September, according to the season."

Fig. 2, Chancellor. This is a fine variety, which has been exhibited for several seasons at the exhibition of the Pennsylvania Horticultural Society, Philadelphia. The original tree, we visited last fall, on the premises of W. Chancellor, on School House Lane, near Germantown, is of large size, and appears healthy and vigorous. It has probably stood there for the last 50 years, and is said to bear abundantly. We annex description by Dr. Brinckle:

"Fruit large, nearly four inches long by three in width; form obovate, or obovate-pyriform; skin green, covered with minute brown specks, and some russet blotches, with occasionally, though rarely, a faint speckled brown cheek; stem one inch long, rather thick, and inserted in a small, irregular cavi-



Fig. 2.

Fig. 3, Smokehouse apple. This is the favorite of this section of country, and is esteemed, wherever known throughout Pennsylvania, for its being so long in use, uniformly fair appearance, and abundant and regular bearing. It is a very crooked grower, both in trunk and branches, with dark-colored wood. The original tree grew on the farm of William Gibbons, in Lancaster county, near his smoke-house, whence

its name. Many fruit growers in this State, if confined to only one variety, would select the smoke-house. Size above medium, oblate, regular, mottled and striped with red on a yellow ground; stalk $\frac{1}{2}$ inch long, slender; calyx closed, set in a wide and shallow basin; flesh yellowish white, rich, aromatic, fine sub-acid flavor. Ripe in October, and will keep for several months.

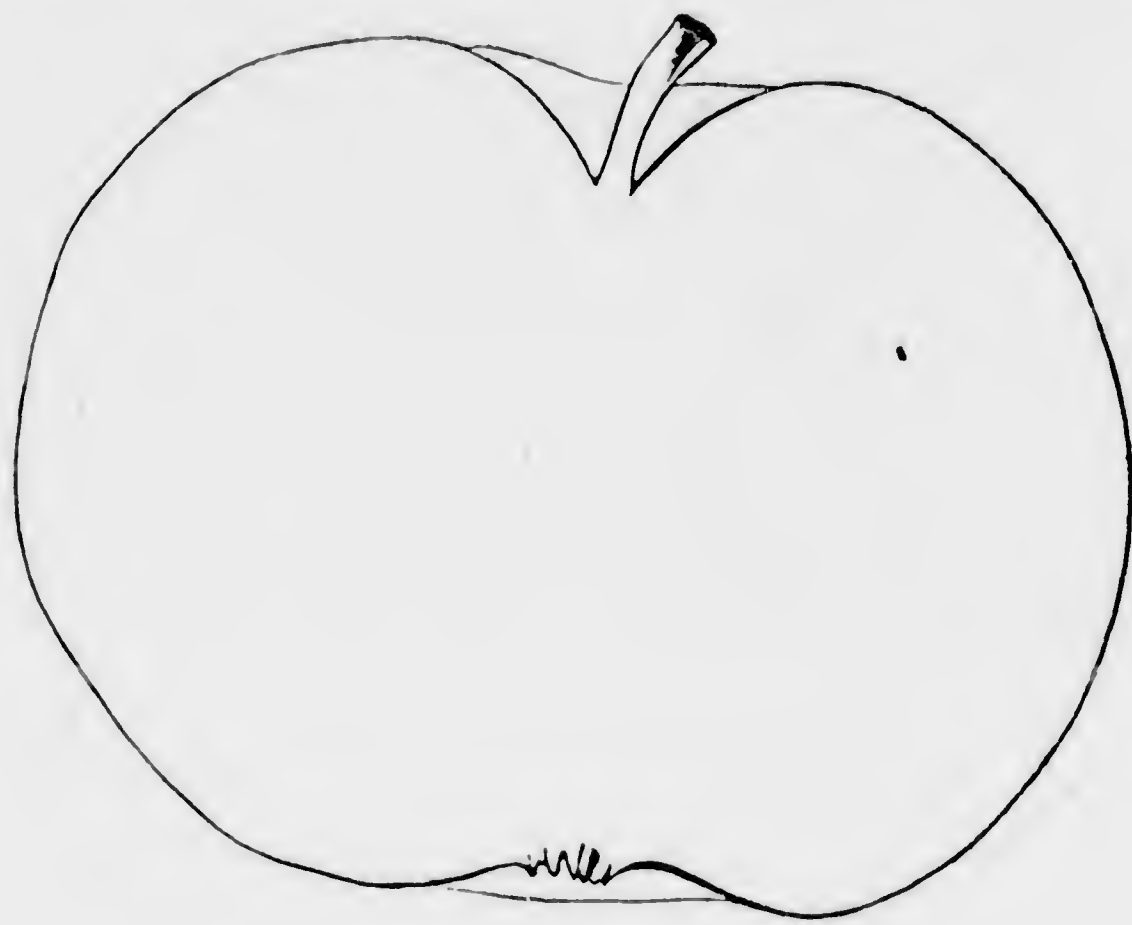


Fig. 3.

For the Farm Journal.
PHILADELPHIA, Jan. 6, 1853.

MESSRS. EDITORS:—

Your interesting reference to the many interesting things which Horticulturists might expect from JAPAN, induces me to copy and send you the following. I find it in the Appendix to Berry's history of the Island of Guernsey, published so long ago as 1815: Have we this flower?

The Guernsey Lily.

This beautiful flower, known throughout England, by the name of GUERNSEY LILY, and cultivated to such perfection in this island, where the natural soil is so congenial as to require but little of the gardener's care, is nevertheless a native of Japan, brought into Guernsey by the effect of accident, more than a century since, when a vessel from Japan, having some roots of this flower on board, being cast away upon this island, they were washed on shore, and buried in the sand, where they remained unobserved till the beauty of the flower attracted the attention of Hon. Charles Hatton, (son of Lord Hatton, then Governor of the Island,) a great florist as well as botanist, who knew the value of the prize, had them carefully transplanted, cultivated the plant himself, and sent roots of it to many botanists and florists in England, where it is much admired, and has to this day continued a great favorite, and is now generally

B.

known after the name of the Island, which has certainly been its foster-mother, but mentioned under the name of *Narcissus Japonicus rutito flore*, by Coenatus, *Narcissus of Japan*, or *Guernsey Lily*, by Eoelyor, in his *Kalendarum Hortense*; *Amaryllis Sarniensis*, by Linneus; and by different authors by various names. I was favored with a long descriptive account of this flower, in a work written by Dr. James Douglas, printed in London in 1725, called *Lilium Sarniense*, wherein every particular is scientifically treated upon; but as their technical terms can alone amuse the learned florist and botanist, I shall refer them for this minute detail to the work itself, and content myself with some few particulars respecting the general nature and cultivation of this plant, which cannot fail of being acceptable to all. They have a light earth made with dung and sand, and a little lime rubbish with it does very well, it keeps the root sound; for if the earth be too stiff or wet, you may keep them for many years before they blow. If they are in pots, they should be put in the house in winter, to keep them from the severe frosts, which are apt to rot the roots. The time of moving them is when they have no leaves on the root, that is from June to August; those that come with six leaves seldom fail blowing the next year, and never bloom till the plant has attained that number of leaves. They need not be put into fresh earth above once in two or three years. By this method of management, Fair

[1853.]

GUERNSEY LILY—FLOWER GARDEN.

341

child, a practical gardener of eminence, mentions he has had the same roots blow again in four years time, and particularly recommends that care should be taken to prevent the leaves being bitten by the frost, and by no means to cut them off which weakens the plant so much that they may be kept twenty years, and never produce a flower. Miller recommends for their roots, the following compost: Take a third part of fresh virgin earth from a pasture ground which is light; then put near an equal part of sea sand, to which should be added rotten dung; and sifted lime rubbish, of each an equal quantity. The great business in the culture of this flower, next to a proper soil and situation, seems to consist in giving the plant as much air as possible, and in preserving the foliage in winter from being injured by the frost. They are grown in this Island in beds of many hundreds together, requiring but little care; the flowering bulbs, as soon as the buds make their appearance, are sent to England in great quantities; packed in boxes with moss, when, upon their arrival, they are planted in pots of sand or light loam; they blossom in September, the flowers continue about a month in perfection, and though inodorous, make up for that deficiency, by the resplendent beauty of their colors. The description given by Dr. Douglas accords so well with this superb flower, I cannot do better than give it in his own words: "Each flower when in its prime, looks like a fine gold tissue wrought on a rose-colored ground; but when it begins to fade and decay, looks more like a silver tissue, or what they call a pink-color. When we look upon the flower in full sun shine, each leaf appears to be studded with thousands of little diamonds, sparkling and glittering with a most surprising and agreeable lustre; but if we view the same by candle light, these numerous specks or spangles, look more like fine gold dust." In Guernsey, the same bulb is often known to flower two succeeding years, but this does not generally happen. It is mentioned both by Kaempfer and Thunberg that the Japanese regard the root as poisonous.

For the Farm Journal.

Flower Garden.

It is a common complaint among the ladies in our neighborhood, that they have no success in raising annuals from seed. The reason we would assign for the failure is, that they are too late in sowing them; perhaps, a few practical hints on the subject would be acceptable at this time. The plan we find most successful is to get a common garden frame or box sometime in March, place it sloping towards the south. Seeds of the following varieties we have found very suitable for small gardens: Candytuft, Rose, Purple & White, Sweet Alyssum, Mignonette, Phlox Drommondi, Nemophila Insignis and Maculata, Dwarf French Marigold, German Aster, ten week stocks,

Zinnia Elegans, Balsams, Marvel of Peru. Fill some flower pots within an inch of the top with light rich soil, sow the seed and cover it lightly with fine soil, place them in the frame, keep the sash closed till the seeds germinate; if the surface of the soil appears dry, give a slight watering when the plants have grown two or three inches, fill the frame with good soil to six inches from the glass, plant out the seedlings two or three inches apart, give them a watering, close the south end, shade them for a few days till they have taken fresh root, then give them plenty of air on clear days. By this means, good strong plants will be obtained for early blooming. For climbing varieties, we would recommend Sweet Peas, Cypress Vine, Morning Glory, Ipomea Cerulea and Coccinea, as very showy and easily obtained by sowing the seed in the open ground. There are other things easily obtained and worthy of cultivation, and will remain much longer in bloom than annuals, such as Verbenas, of various colors, Petunias, do., Heliotrope, Scarlet Geranium, Scarlet and Blue Sage. It is common to see all things planted together in beds or borders, but they are much more attractive if planted in beds or masses, each kind by itself, contrasting the colors as much as possible. We would also recommend for edgings of flower beds, the Sweet Scented Violet, the Garden Daisy, Dwarf Blue Iris, Thrift or Sea Pink, as very suitable. No garden should be without some Perennials, such as Dahlias, Holyhocks, Phloxes, Chrysanthemums, Sweet Williams, Pinks and Carnations, Primrose and Polyanthus, Snap Dragon, Campanula, Foxglove, and, as yet, nothing has been said about Roses. We will name a few remarkable as free bloomers, Souvenir de Malmaison, Mrs. Bosanquet, Pale Blush changing to White, Hermosa, Pink, Monthly Cabbage, Deep Rose, Julia Fontenelle, Dark Red, Agrippina, Crimson, La Reine, Rose Lilac, Marquis Bocella, Light Pink; the above are hardy bush Roses growing four feet high; for running Roses, we would recommend for covering arbours, Queen of the Prairies, Pink, blooms once a year; for ever blooming varieties, Lady Washington, Pure White, Jaune Desprez, Rosy Buff, Souvenir de Ansalet, Bright Red, Glorie de Rosamene, scarlet. In addition to Roses, we would add the different varieties of Honeysuckles, and some flowering Shrubs, especially the following: Weigelia Rosca, Spireas, Revesii and Prunifolia are well worthy of room in every flower garden. If these rough notes should be acceptable, perhaps we may offer a few remarks about those beautiful Tulips, Hyacinths, Narcissus, Crocus, and Snowdrops, that appear as soon as the snow is gone.

A LOVER OF FLOWERS.

The Pig population of the Mississippi Valley is estimated to be 40,000,000,

For the Farm Journal.

Ornamental Gardening.

MR. EDITOR:—

In your last number, I see some very excellent remarks on the culture of fruits, flowers and vegetables. Should you think the following, (in my opinion,) necessary accompaniments, to secure in the first formation of a place, regularity in the shape of a pleasant landscape, or of a neat flower garden worthy of a place, you are welcome to them. To accomplish this is one thing and to desire it is another. How often do we see owners of property in the country, not to speak of the suburbs of our towns, at a great cost, employing inexperienced men, calling themselves Gardeners, who go to great labor in *murdering nature*, turning that into a stiff, unseemly mass, which in the hands of skilful workmen, would have been advantageously and economically made pleasant to the eye, as well as saving money in the purse.

The most striking success in ornamental Gardening, is where the effort has been to take advantage of nature and turn her to good account, not to produce something grotesque and unnatural. Let the proprietors of land about improving their grounds, apply to nursemens, and make them responsible. These often have experienced men in their employ, or can refer to them, by which plan, work would be more judiciously done, and the responsibility lay where it could be borne.

There are three distinct styles of Gardening, each differing in DESIGN, City or Street Gardening, Suburban, and the Landscape style, adapted for country seats. For the first of these I will not travel out of your goodly Borough. It is the prevailing practice to have a grass plot interspersed or rather dotted with roses, chrysanthemums, &c. I like to see these miniature lawns, *green*, which is always pleasing, but to have the natural beauty of it destroyed, by these strange dottings of plants here and there, with little circles of earth, rising round their roots like mole hills, is certainly not in good taste, and only wants to be noticed to be exploded.

Do not let me be understood, as wishing to see lawns without such furniture. Nothing is more desirable than to have choice and well assorted varieties of plants, on these little lawns, along our streets, but let beds be formed for them, cut with neatness out of the grass, and on these beds *clump* the flowers together. Thus do we secure the grand object, namely, a flower Garden in its proper place, alike proper for the culture of the flowers, and also free from the Gardener's scythe, when mowing the lawn.

In a future number I shall take up the proper formation of a suburban Garden, and may perhaps approach to the more difficult and wider field for a Landscape Gardener, in the formation, planting and laying out the Grounds for a country seat.

SCOTICUS.

Roses.

The following remarks on the classification of the rose, with a description of their signs of distinction, may perhaps be of some interest to your readers. They are from the *Garten und Blumen Zeitung*.—

M. Carriere divides Roses into seven main classes:

1. Perpetual or Portland Roses.
2. Hybrid Perpetuals from Portland.
3. Hybrid Perpetuals from Bourbon.
4. Bourbon Roses.
5. Noisette Roses.
6. Bengal Roses.
7. Tea Roses.

SIGNS OF DISTINCTION.

CLASS 1.—*Perpetual or Portland Roses* have fine short thorns, which appear very close together, cover the branches almost entirely, and give them a brownish appearance. The branches grow erect. The flower-stalks are short and stiff, and each of them supports usually one flower, which has a somewhat lengthened calyx. For example: Duchesse de Rohan, Julie, Krudner, Bernard, Favorite, and others.

CLASS 2.—*Hybrid Perpetuals*, from Portland—These produce erect growing branches, and are covered with hard thorns, which vary in size and strength. They assume the same growth as the Portland Roses, have likewise a lengthened calyx, but on the top of the branches there are sometimes one, three, or seven flowers, forming a stiff and erect boquet. Rose de Quatre Saisons may be taken as the type of their growth and their flowers; also, La Reine, Baronne Prevost, Jacques Laffitte, Madame Laffay, Duchess of Sutherland, Amandine, Louis Bonaparte, Clementine Seringe, Gloire d'Angers, Comte de Montalivet, &c.

CLASS 3.—*Hybrid Perpetuals*, from the Ile-Bourbon—It seems that plants of this class keep the balance between Perpetual and Bourbon kinds: they approach, however, in appearance, more to the latter. The sepals of the calyx are generally very strongly fimbriated. The rounded form of the calyx is also another sign by which they may be distinguished from the Portland hybrids. An irregular and intricate position of the branches gives them a peculiar appearance. Examples are Clementine Deval, Comte de Bobinski, Ernestine de Barante, Colonel Foissy, Géant des Batailles, Vicomtesse de Bellevue, &c.

CLASS 4.—*Bourbon Roses*—The wood of these is smooth; their branches are sometimes short, terminating with a single flower. But the buds of some kinds are strong, and produce vigorous shoots, on the tops of which appear from three to twelve flowers. The thorns at the base are strong, curved, and placed at some distance from each other. The sepals are oval, rounded, strong, fimbriated, smooth and dark green. The calyx is rounded. It often happens that the branches of some kinds in this class grow horizontally. Examples: La Reine des Ile Bourbon, Madame Desprez, Charles Souchet, Paul Joseph, Souvenir de la Malmaison, Souvenir du 4 Mai, Raymond, Mrs. Bosanquet, &c.

CLASS 5.—*Noisette Roses*—Their foliage has much resemblance to that of the Tea Roses, but their branches are more vigorous, much longer, and terminated with numerous flower-buds. The bark of the branches is smooth and thorny. Examples: La marque, Ophyrise, Aimée Vibert, Rose Mille Ecu, Noisette Desprez, &c.

CLASS 6.—*Bengal Roses*—In this class the branches are nearly without thorns, the bark is smooth, the sepals are more or less prolonged and fimbriated, the branches seldom bear more than one flower. The calyx

is rounded, the flowers have nearly always color, whilst those of the Tea Roses, (with which this class is in close relationship) are, with few exceptions, pale white or yellowish. It is also to be observed, the flowers of the Bengal Roses are very seldom scented. Examples: Bengale Ordinaire, Cramoisie Supérieure, Prince Eugene, Eugene Hardy, Beaucarnin du Luxembourg, Augustine Hersan, &c.

CLASS 7.—*Tea Roses*—The branches have a very smooth bark, and have not many thorns. The leaves are glossy, and the flowers appear on the top of the branches, which are slender and not very long. In most cases, the weight of the flowers bends the branches, so that only their under-side is seen. Vigorous examples produce sometimes stronger shoots, which are not so flexible, and bear three or often five flowers on their end, as Devonensis, Safrano, Souvenir d'un Ami, Vicomtesse Decazes, Eliza Sauvage, Bares, Goubault, Moire, &c.—[*Gard. Jour.*, 1852, p. 724.

Prospects of the Farm Journal.

We in this number commence with an improvement in our paper, by transferring all our advertisements to the cover, which will add about four and sometimes more additional pages of reading matter to each number. This has involved the expense of a new font of type, and very considerable expense in other respects, but we consider it will greatly enhance its value to our subscribers, and when bound make a much more valuable volume, by embracing only reading matter, without the advertisements.—The latter, it will be observed, are printed in neat, clear style; our circulation extends through every part of our own, and considerably into other States, and offers a valuable medium of advertising on all matters pertaining in any way to Agriculture and Horticulture.

The Farm Journal is now permanently established at West Chester. It is the only strictly Agricultural paper in Pennsylvania. The present proprietors undertook it with the determination, as far as in their power, to make it fully equal to any Agricultural paper in the country, and worthy of the patronage of the farmers of *our own State*. We acted on the presumption that there was enough Pennsylvania feeling, and State pride, to sustain a good paper within our own borders, in preference to those published in other States, if it was as well conducted.—Not that we wish to object to our farmers taking these others, *by no means*, but only that they should not be the means of excluding our own Farm Journal. There are eleven or twelve Agricultural papers published in New York, and a very material part of their support comes from Pennsylvania. We do not ask for subscriptions, as a gratuity. We expect to give the worth of every dollar we receive. Those who think it is not worth the price of subscription (only 75 cents to clubs) had better not take it.

We also hope to be assisted by many of the able pens throughout the State, resuming their correspondence in its pages, and to those who have heretofore

written for it, as well as to others who have facts or information of value, in any department of Agriculture or Horticulture, we now tender an invitation to send us their articles for publication.

We wish to make the Farm Journal emphatically a Pennsylvania Paper. We have the means of doing this if properly sustained, by a little exertion on the part of those who think the effort worth making. If our friends in any part of the State would get us up clubs of subscribers in their respective neighborhoods, it would much assist us in showing that our efforts to benefit the farmers' interests are appreciated.

Portraits of Improved Stock.

On account of the condition animals are usually in at this season of the year, it has been thought best to postpone for a time, the illustrations and portraits which we have in prospect for the pages of the Farm Journal. Some of the very best animals in the country, of various breeds, are only being delayed for a milder season, till they can be daguerreotyped. We have determined that hereafter, no *mere* artistic figures, and highly flattered, unnatural specimens of stock, which have so abounded in some of our agricultural periodicals, shall be admitted into its pages. If a high-priced Cow, or Bull, or Sheep is so deficient in good points and general figure, that it will not do to tell the truth in a *real portrait*, they had better be sent to the butcher. A \$10 note may be thus saved in paying an artist, who to gratify the wish of the owner, to make an improvement on nature, might as well make the drawing from *description*, without ever seeing the animal.

As we remarked in a former number, when introducing the Southdown Sheep of John Worth and Joseph Cope, (which, by the way, had not justice done them by the engraving,) there is much difficulty in getting an artist sufficiently acquainted with the points of good stock, to be able correctly to draw an animal portrait from life. For this reason, as regards the Pennsylvania Farm Journal, we shall exclusively adopt the daguerreotype process, it being always easier to *copy* from it than to originate correctly. Where the intention of the owner is truthful there will be no difficulty. Were this always the case, there would be no such caricatures as we often see. Francis Rotch, of New York, so widely known as an experienced and successful breeder of both sheep and cattle, in a recent letter to us, coincides so fully with our views, that with his permission we make some extracts from his letter, with his remarks on the portraits of some of the animals figured in the transactions of the New York State Agricultural Society. Some of these appear to be unfaithful likenesses in *not coming up* to the reality. In this case, as in the other of going beyond it, they had better not be published.

"Never was a greater misnomer than 'illustrations' when applied to the representation of animals, as put forth in most of our agricultural periodicals. I know not why a man should not feel himself as responsible for the truth of the pencil as the pen. (if degrees in truth were admissible.) I should say he is yet *more so*, inasmuch as he professes to resort to it by way of *illustrating* a subject better than it can be done by the pen.

"In many instances the pictorial additions to a publication are not important to the work itself—they are often but embellishments: but I take it, such is not the case when a State Agricultural Society publishes its doings and its awards, and gives *portraits* of the animals to which they have adjudged premiums, as the best of their kind.—[See the transactions of the N. Y. State Agricultural Society for 1851.

"Lord Eryholme" is evidently a sick animal.

"Esterville" is quite poetical, and delights the imagination.

"Azelia," I must suppose, has had great injustice done her, for such a head and such coarseness, could hardly claim the first premium in any society; whereas I have been assured by those who have seen her, that she is a very superior cow, though not quite so fine in the head as would be desirable.

"Apricot" I doubt not, is well and truthfully represented. The engraving tells you she is young and immature, but of good promise.

I now come to the premium 'Devon Cow,' and only wonder the owner could do his herd such injustice as to publish so gross a caricature; for America, I will venture to believe, does not possess more finished or better animals than belong to it; and the New York Agricultural Society, however its committees may blunder, would hardly endorse this engraving as representing the best Devon Cow on their ground in that year. Yet this very representation is put forth by the Society by way, I presume, of instructing and teaching the people what is the best model of a Devon.

Lastly the Hereford Bull, 'Tromp,' showing all the characteristics of his breed, and *looking in the engraving* as though he well deserved the premium he was awarded, strikes me as both true and artistic. Mr. Forbes, the artist, drew, I doubt not, what he saw before him, and has been well seconded by Mr. Carson, the engraver.

While I condemn those attempts at portraits which libel their originals, we must admire the perfect integrity of purpose and truthful intent of their owners, in thus entrusting the delineation of their beautiful stock to the artists, without oversight or correction.

These stand in strong contrast to the more *business-like* breeder, who orders his animals to be drawn *alter his own conceptions of the beautiful*, making them what he would have them to be, rather than what they are, and puts them forth as *portraits*.

I cannot, however, turn from the illustrations in the Transactions of 1851, without noticing the beautiful and artist-like execution of the portrait of a French Merino Ram, by M. Pease. I have seen nothing in our Agricultural Periodicals so excellent in either drawing or cutting. The artist's name, who made the sketch, I am sorry to say, does not appear.

We hope to make the Pennsylvania Farm Journal a complete Herd book for our State, and if our suggestion to breeders in the last number, in respect to registering pedigrees, should be carried out, accompanied as our pages will be by appropriate illustrations

tions of stock, we think it will make the most complete and cheapest Herd book that could be gotten up.

We have made arrangements to have engravings correctly executed, and if persons who choose to incur the expense of this, the very best kind of an advertisement of their choice animals, will forward us their daguerreotypes, we will attend to the engraving, and see that a *faithful* copy is taken.

PROCEEDINGS OF THE SECOND ANNUAL MEETING OF THE PENNSYLVANIA AGRICULTURAL SOCIETY.

HARRISBURG, TUESDAY, January 18, 1853.

In accordance with the fourth section of its Constitution, the Pennsylvania Agricultural Society, met on the third Tuesday of January, 1853, in the Hall of the House of Representatives.

A quorum of members being present, the meeting was organized by the motion of J. S. Haldeman, electing C. B. Trego as Secretary pro tem.

On motion a committee of three, consisting of D. Mumma, Jr., A. S. Roberts and J. Konigsmacher, were appointed to invite his Excellency, the Governor, and the heads of Department, to be present during the meeting.

A. O. Hiester, Chairman of the Committee on Field Crops, appointed for the last Annual Exhibition, made a report which, together with its recommendations, was, on motion adopted.

REPORT OF THE COMMITTEE ON FIELD CROPS.

The Committee on Field Crops in this, the first report, beg leave to congratulate the Society, that whilst the last census presents our noble State as first amongst her Sisters in some of the most important staple crops, in the aggregate, the interest excited by our Agricultural Exhibition and the competition elicited by the offer of honorable premiums, has brought to our knowledge another fact, that without extraordinary attention, and without any idea of competing for premiums, at the time of planting and during cultivation, we are also first and foremost among our sister States in the production of particular field crops.

The dissemination of Agricultural information generally, and the reports of special results from particular modes of plowing, planting and manuring, as sent forth by the Society, must exert a most healthful influence in awakening the energies of the farmer, and exciting a spirit of laudable rivalry and emulation throughout the State. And if such are to be the results of our efforts, we may with great propriety claim continued liberal patronage and public favor.

The Committee would most respectfully at this stage of their report, recommend a revision of the premiums for field crops, so as to excite greater public attention and competition, and that premiums hereafter to be dispensed in a more liberal and extended manner. We owe it to the cause in which we are engaged, and our present resources, and future prospects will justify the additional inducement. The father of his country has written, and it has now become a household saying, that the man who can make two blades of grass grow where but one grew before, should be considered a public benefactor. Let us liberally reward the man, who by his industry, skill and science, makes two bushels of wheat grow where but one grew before, and generously communicate to the society his manner of doing it, so that

we may lay it before the public, thus aiding in an important particular the great object we have in view, the advancement of the agricultural prosperity of the State.

The Committee report that there are four applicants for premiums on Corn, who conform to the requirements of the Society, viz:

1st. George Walker, of Woodbourne, Susquehanna county, Pa., who produced, as per accompanying statement, 160 bushels per acre on five acres, and twenty tons of superior Pumpkins.

2d. Dr. John A. McCrea, of Whitmarsh, Montgomery county, Pa., 93 bushels of shelled Corn per acre, on eleven acres and twenty-five cheres.

3d. Jno. B. Bitzer, West Earl township, Lancaster county, eighty-five and three-fifths bushels of shelled corn per acre on five acres.

4th. Jno. B. Bitzer, of West Earl township, Lancaster county, ninety-six and three-fourths bushels of shelled corn on one acre.

For Wheat there are two applicants for premiums, who produced, as per accompanying statement,

1st. Reuben Weidler, Bareville, Lancaster county, forty bushels and twelve and three-fourths pounds of wheat on one acre.

2d. Joseph Lendale, of Lycoming county, thirty-two bushels White Blue Stem whea to the acre, on sixteen acres.

Benjamin Buckwalter, Lancaster county, produced seventy-three and one-third bushels oats per acre on eight acres and 123 perches.

John Wilkinson, Mount Airy Agricultural Institute, Philadelphia county, Pa., produced 1017 bushels Carrots on one acre.

*Henry A. Carpenter, Lancaster county, one-fourth acre Sugar Beets: one-fourth acre Ruta Baga.

*J. H. Smith, Lancaster county, one-fourth acre field turnips.

The Committee regret that in so large a Commonwealth, and such an extensive field for competition, there were not more applicants, although it was to have been expected, that one or two seasons would elapse before farmers would feel sufficient emulation to accurately survey and measure an entire crop for so small a premium as is awarded.

The written statements of competitors are very satisfactory for first reports, many of them being full and specific upon every point, except it be the nett cost per bushel or per acre. We have no doubt this defect will be corrected in future. The Committee deem the rules of the society to have been complied with by most of the competitors, and we find no difficulty in making the awards. After a careful examination and comparison of the different statements and samples, which are herewith submitted to the Society for examination and distribution, the Committee award as follows:

Geo. Walker, first premium for best five acres of corn, \$15 00.

Also a complimentary premium for the same, of fifty dollars.

Jno. A. McCrea, for second best five acres of corn, \$5 00.

J. B. Bitzer, first premium, for corn on one acre, \$8 00.

R. Weidler, first premium, for one acre of Wheat \$8 00.

John Wilkinson, first premium for carrots on one acre, \$8 00.

*No certificate of yield, or mode of culture.

Also, a complimentary premium for the same, of fifteen dollars.

A. O. HIESTER,
MICHAEL DOEDLE, } Committee.
JACOB FRANTZ, }

SECRETARY'S REPORT.

The closing of the second year of the Pennsylvania State Agricultural Society, furnishes the evidence that its organization has been for good, and that it has received attention from its friends, commensurate with the importance to be attached to an institution intended to foster and improve Agriculture, Horticulture and the Domestic and Household Arts. It has also afforded sufficient proof that there does exist in Pennsylvania, all the elements required to carry forward and foster successfully a State Agricultural Society.

The proceedings of the year, which are those of the Executive Committee, have been nearly altogether of a business nature, and are made up from the minutes of said committee, which has been in session eight times since the last annual meeting of the Society. A very considerable amount of time and labor is required from, and has been cheerfully given by the members of the Executive Committee, upon whom has devolved all the business of the association.

The following resolution was passed by the Executive Committee, at their meeting on the 10th of December, 1852:

"Resolved, That experience has shown that our Annual Exhibitions have heretofore been held too late in the season, and that our next Annual Exhibition and Cattle Show shall be held on Tuesday, Wednesday, Thursday and Friday, the 27th, 28th, 29th and 30th days of September next."

In accordance with the Constitution of the United States Agricultural Society, which makes provision for the establishment of a Board of Agriculture, to be appointed by the respective State Agricultural Societies, the Executive Committee has appointed Fred'k Watts, John H. Ewing, and H. W. M'Allister, members of the said Board of Agriculture.

It was also resolved that the thanks of the Society be tendered to the Agricultural Society of Lancaster county, for the industrious attention which they have given to the interests of the State Society during its exhibition, and especially to their Executive officer, Daniel Rhoads, for his untiring energy in executing the orders of the Committee of Arrangement.

The Committee appointed to receive proposals from places competing for the next Annual Exhibition, reported progress and had leave to report at the next meeting of the Committee.

The Committee appointed to audit the accounts of the Treasurer, reported and certified to the correctness of the same.

It is to be regretted that none of the different county Agricultural Societies in the State, have complied with the Act of Incorporation of the State Society, which requires that they shall annually transmit in the month of December, to the Executive Committee, "all such reports or returns as they are required to demand and receive from applicants for premiums, with an abstract of their proceedings during the year."

An adherence to that part of the law requiring them to make report of their yearly proceedings, would enable the State Society to acquire a great store of agricultural information, from the various districts, and a sufficiency of agricultural statistics to warrant the Legislature in following the worthy ex-

ample of the States of Massachusetts, New York, Ohio, Michigan and Maryland, who have had published three very interesting and valuable works called the "Transactions" of their respective State Agricultural Societies.

There are nineteen Agricultural Societies in the State, very few of which had any conference with the State Society, on any subject of mutuality, and nearly all have neglected altogether the importance of concerted action, in the many ways that would facilitate both in contributing to the husbandry of the country.

The Perry County Agricultural Society was represented at the late State Fair, by a large display of fine fruit, and articles of domestic manufacture, to some of which premiums were awarded, and others were spoken commendably of by the Committees. The Executive Committee passed a resolution tendering their thanks to the Perry county Society, for the handsome contribution they made to our Annual Exhibition, and requested other county Agricultural Societies to follow its example.

The second Annual Exhibition, held at Lancaster, was by far more extensive than the one of the preceding year, and for a Second Exhibition, was probably unprecedented in the history of State Agricultural Societies. The display of animals and articles from the various parts of the State was very creditable, and the numbers entered for competition on the books of the Society, was a large increase over the former occasion, clearly showing that the zeal which was manifested for a first Exhibition had not in the least abated by the lapse of another year. One striking feature of the Fair, was the valuable specimens of pure bred Fowls, which were exhibited in great numbers, and deservedly attracted marked attention, while they showed the importance of every farmer looking to the interests of his poultry yard.

The Plowing Match was one of considerable interest, and the strife among the plowmen who had entered the contest was characterized by a good feeling, and a generous emulation as to the reward of their labors.

The several departments of the Exhibition were all well supplied with contributions, and presented their usual attractions. The new and interesting feature of the Exhibition made up by the collection of valuable wools, owned and presented by Peter A. Browne, Esq., of Philadelphia, afforded quite a treat to the wool growers, who had the pleasure of examining the rare specimens, and suggests to the Society the importance of aiding this distinguished gentleman in his new and laudable endeavor to improve the wool culture, by pointing out the distinct difference between hair and wool, or between wool that will, and that which will not felt or shrink together.

The Exhibition was deficient in the customary annual address, owing to the engagements at the time, of the gentleman who had been invited for that purpose.

The Fair ground, situated on an eminence scarcely a mile from Lancaster, and commanding a fine view of the Conestogo Valley, the Columbia Railroad for several miles, and the magnificent farms which surrounded it on all sides, was a beautiful location, and for the purposes of an Exhibition, every way desirable.

The Committee of Arrangement, composed almost exclusively of members of the Lancaster Co. Agricultural Society, upon whom devolved the many duties to be performed, both before and after the fair, deserve the thanks of the Society for the untiring and

disinterested attention given to the interests of the State Society during the exhibition.

The registry of the names of the members shows that they have been more than doubled since the last annual report, there being now over four thousand, two hundred members, all of whom are regularly entered on the books of the Society, and alphabetically arranged, with their post-office address.

Certificates of life membership have been issued to James Gowan, of Mount Airy; P. B. Savery, of Philadelphia, and S. C. Stambaugh, of Lancaster. This mode of strengthening the treasury of the Society has been less successful than might have been expected, for where it is considered that the fee for life membership is only ten dollars, one would readily believe that the dictates of economy would induce life members by the score.

Two years have expired since the organization of this Society, and would it be improbable to suppose that eight years hence, hundreds who are members now will be members then? Who then can account for there being but four life members now, when eight years more shall have expired? All who continue members for that period will have paid the whole amount of the fee for life membership, and at the end of that time will be still contributing their dollar yearly. It might not be improper here to suggest that the Vice President be desired to invite life-members from their respective districts. Each Vice President furnishing ten life members, would give the Society \$2,500, or nearly double the amount of premiums paid out the last year.

It will be seen by the Treasurer's report that there are funds in the treasury to warrant a very considerable enlargement of the premium list, and an increase of premiums for the next fair, which is contemplated by the Executive Committee.

The reports of the Judges who served on the several committees for the last Exhibition, (of which three thousand copies have been published, and distributed among the members of the Society,) show a decided improvement on the part of exhibitors in preparing statements in regard to culture, methods of manufacturing, &c.

It will be seen also that the Executive Committee have increased the number of days for holding the next Exhibition to four, so as to enable exhibitors to have entered and arranged, in due time, all things intended for competition, and to give the Judges more time in their adjudications; and to enable them to give that attention to the making up of their reports, which their importance to competitors and to the Society so justly demands.

In submitting such abstracts from the records of the Society as have been designated, and which are hoped will contribute to the interest of our Annual Meeting, I cannot refrain from congratulating the members upon the successful effort which has been made by them to firmly establish in Pennsylvania an institution, whose two years existence fully demonstrates that it is rapidly approximating to an equality with kindred associations, whose beneficent influences have aided agriculture throughout the world.

We have reason to rejoice that as yet no obstacle has been met with to retard the Society in its gradual advancement to the position which it this day occupies; and it is a gratification to know that the treasury of the State has been twice opened in its behalf, and that the Governor of the Commonwealth, in his late annual message, has recommended the appointment of an Agricultural Chemist to act in conjunction with this and the County Societies.

The interest that is felt in every part of the State

to have succeeded the first effort calculated to benefit the farmer, the Legislative aid so confidently to be relied on, the members of the Society now numbering thousands, the money in its treasury, and the willingness of almost every one to assist in its promotion, all indicate a permanency of the Pennsylvania State Agricultural Society, which it is hoped will not cease while agriculture contributes to the comfort and happiness of man.

R. C. WALKER, Sec'y.

GEO. WALKER'S MODE OF CULTIVATION.—I plowed five acres of green sward for corn in the beginning of May, 1852 and hauled one hundred loads of manure on the same. After the manure was spread the ground was well harrowed, and planted, the last of May, in rows $3\frac{1}{2}$ feet apart, running east and west, from three to five grains in the hill. Two bushels of lime, mixed with three bushels of plaster was applied to said five acres of corn, very soon after it came up. A plow did not enter the field after the corn was planted. The ground was kept loose and mellow, and the grass and weeds subdued by the use of the cultivator; making but little use of the hand-hoe. A specimen of the corn was exhibited at the State Fair, at Lancaster; it being of the white flint species, eight-rowed, small cob, and long ears, more than one foot in length. In addition to the enormous yield of 160 bushels of shelled corn to the acre, the same field, of five acres, produced twenty tons of superior pumpkins, some of which weighed more than forty-one pounds. Said field is situated on one of the highest hills in Susquehanna county, being an oak, pine, beech and sugar maple ridge. Soil, a sandy loam.

All of which is respectfully submitted.

GEO. WALKER.

WOODBORNE, Susq'a co., Oct. 14, 1852.

The subscribers have this day examined the corn raised by Mr. George Walker, on his farm, at this place.

We measured carefully, with a surveyor's chain, one square acre embracing an average of the field.

We then counted the hills of corn on each outside row, and found it 128 hills long, by 33 wide. We then selected an average row, and beginning on one side, worked twenty-six hills, which we shelled and measured, and there was a little over a full bushel.

The corn was not dry, and probably will shrink from $\frac{1}{4}$ to $\frac{1}{2}$. The present amount would be 160 bushels of shelled corn—120 of dry, merchantable corn.

Very respectfully,

WILLIAM D. COPE,
A. CHAMBERLIN.

JAMES A. MCCREA'S MODE OF CULTIVATION.—The undersigned respectfully presents the accompanying certificates of the measurement of land, and its product in corn, in competition for the premium offered by the Agricultural Society of the State of Pennsylvania.

In this section of our State, such a crop is exceedingly beyond the average, and elicited warm encomiums from all who had an opportunity of seeing its luxuriant growth. The mode of cultivation was that usually employed in this county, viz:

A sod of more than 20 years growth was broken up in March, harrowed thoroughly, then hoe-harrowed and furrowed out for planting 4 and $3\frac{1}{2}$ feet. The corn was planted the first week in May, about two-thirds with Dutton and the rest with mixed variety. My neighbor farmers were of opinion that if the mixed variety alone had been planted, the yield would have been materially increased. Of this, however, I am not satisfied. The irregular outline of the field rendered it impracticable to institute a comparison with that accuracy which should always accompany agricultural experiments, to entitle them to confidence. A given bulk of the mixed variety was found to shell off about 4 per cent. more by measure and 8 per cent. less by weight than the Dutton.

The Dutton corn was selected with reference to its character for maturing early—as the desire was to bring the field back into grass in the shortest possible time.

The unusual character of the autumn, however, defeated the object, and also showed no difference in favor of the Dutton over the mixed variety, on the score of earlier maturity. I may also add, that the fodder was very rank on the

entire field, much of it from 15 to 16 feet high; none under 12 ft. The Dutton corn with us is not often more than nine or ten feet high.

There was no manure employed, and the rapid growth of the crops did not permit it to be stirred more than twice with the cultivator.

JAMES A. MCCREA.

Ardenheim Farm, Whitmarsh tp., Mont. co., Pa.

Montgomery co., Jan. 6th, 1853

I hereby certify that I superintended harvesting and measuring the corn crop grown upon 11 acres 24 perches, on the farm of Dr. James A. McCrea, in Whitmarsh township, Montgomery county, and that said crop was 1028 bushels of shelled corn.

JOSEPH NIEMAN.

I hereby certify that I measured accurately the field of corn upon the farm of Dr. James A. McCrea, in August last, and that the same contains 11 acres 24 perches of land.

JOSEPH HUSTON, Surveyor.

REUBEN WEIDMAN'S MODE OF CULTIVATION.—The ground was timothy sod. It was accurately surveyed by William Weidman, on the 1st of October, 1852, and found to contain 155 $\frac{1}{2}$ perches, less 4 $\frac{1}{2}$ perches than one acre.

The mode of cultivation was as follows: Ploughed in the spring, then put in with potatoes, and after they were raised, about 16 one-horse cart loads of manure spread over it, then again ploughed about 8 inches deep and harrowed until in good seeding order; and then sowed in with 1 bu. 3 pecks of what is called the Ohio wheat with drill. The wheat was reaped, shocked, and then stacked and remained there until the 4th day of October, 1852, when it was threshed and yielded thirty-eight and a half bushels by measure; weighed 62 $\frac{1}{2}$ lbs., which makes forty bushels and twelve and two-third lbs. of wheat by weight.

Certified by us, October 18th, 1852.

WILLIAM WEIDMAN,
J. W. LEBER.

Oats raised by Benjamin Buckwalter.

EAST LAMPETER, Sept. 6th, 1852.

This is to certify that the oats field contained 8 acres and 125 perches—neat measure.

Witness our hands, ABRAHAM BUCKWALTER,
BENJAMIN BUCKWALTER.

This is to certify that the above quantity of land produced 640 bushels.

Witness our hands, HENRY GROFF,
BENJAMIN BUCKWALTER.

Description of the Manner in which John Wilkinson produced his Crop of Carrots, in 1852, measuring 1017 Bushels per Acre.

The ground was a good sandy loam, principally mica and slate; the fertile surface soil about eight inches in depth.

It had been in Lucerne two years previous to breaking up for Carrots.

The sward was turned under nine inches deep in April, following the surface with the subsoil plough, to the depth of six inches more.

Land was manured with four hundred pounds Peruvian guano per acre, and twenty-five two-horse loads of compost, consisting of the scrapings of the manure yards, screenings of guano, decomposed flesh of Horses, Cows, &c., and gleanings from banks of ditches, thoroughly incorporated with the soil. The seed was planted the 5th of May in drill, 2 $\frac{1}{2}$ feet apart, using two pound seed per acre—the variety Long Orange.

They were kept clean throughout the season; were hand-weeded but twice, and cultivated principally with horses, using a cultivator made by C. B. Rodgers, of Philadelphia, expressly for the purpose; and also subsoiling the surface, three times during the season between the drills, with a light one-horse plow. The crop was harvested the last of November. They were taken out by means of the large subsoil plow, running it seventeen inches in depth.

By the use of the S. S. plow for digging carrots, and similar roots, a strong team will do the work of twenty-five or thirty men, and do the work equally as well as it can be done by manual labor.

I preserve them in pits, cover them with earth, without any other covering. I sell them in the city of Philadelphia for feeding Horses; the price varies from 37 $\frac{1}{2}$ to fifty

cents per bushel. I have sold them this year for 45 cents per bushel, and thus realized upwards of \$450 per acre.

All of which is respectfully submitted to the Committee on Root Crops, of the Pennsylvania State Agricultural Society.

J. WILKINSON,

Germantown, Dec. 22, 1852.

I do certify that I assisted to produce the crop of Carrots grown by Mr. Wilkinson, of the Mount Airy Agricultural Institute, in 1852, and that one acre, surveyed by Mr. L. H. Gause, (Mathematical Teacher of the Institute,) produced one thousand and seventeen bushels, good measure, per acre, of the best shaped carrots, and best proportion of tops, to the roots that I ever saw, and I have been familiar with their production for the past ten years.

I do further certify that this was the largest crop that I ever assisted to harvest, and the extraordinary yield, was owing to the liberal, thorough, and scientific manner in which the crop was manured and cultivated.

S. T. UMAH.

Sworn and subscribed before me, this 16th day of December, 1852.

ROBT. THOMAS,

Justice of the Peace in and for the county of Philadelphia.

I do certify that I surveyed with a compass and chain, for Mr. John Wilkinson, of the Mount Airy Agricultural Institute, one acre of the ground occupied by his carrot crop in 1852, which he subsequently had carefully measured for the purpose of competing for the prizes offered by numerous Agricultural Societies, and I am satisfied that the survey was accurately made.

L. H. GAUSE, Surveyor.

Sworn and subscribed before me, this 16th day of December, 1852.

ROBT. THOMAS,

Justice of the Peace, in and for the county of Philadelphia.

We have received the Treasurers report of the State Agricultural Society, with the items of expenses and receipts for last year; also the report of the committee on the subject of a State Agricultural School. They shall appear in our next, and we regret having room only for the following resolution in the present number:

Resolved, That an Agricultural Convention be held at Harrisburg, on Tuesday, the 8th of March next, to adopt measures for the establishment of an Agricultural Institution, to be styled "The Farmers' High School of Pennsylvania," with a model farm attached thereto; and that the convention consist of as many delegates from each district as there are Senators and Representatives in the Legislature from the same; said delegates to be chosen by the Agricultural Societies, where such are located, and in other districts by the friends of agricultural education.

ALGERNON S. ROBERTS,

J. CAROTHERS,

JOSEPH KONIGMACHER,

A. O. HEISTER,

DAVID MELLINGER,

Published by order of the Executive Committee.

ROBERT C. WALKER, Secretary.

HARRISBURG, Jan. 18th, 1853.

ORWIGSBURG, January 13, 1853.

The following is the list of Officers of the Schuylkill county Agricultural Society, elected on the third instant.

President—HON. JACOB HAMMER.

Vice Presidents—JOSHUA BOCK and JOHN J. PAXSON.

Recording Secretary—J. S. KELLER.

Corresponding Secretary—JNO. BANNAN.

Librarian—J. S. KELLER.

Treasurer—W. A. HAMMER.

Curators—J. F. TREICHLER and RUBENS PEALE.

J. S. KELLER, Rec. Sec'y.

Pennsylvania Horticultural Society.

The monthly stated meeting of this society occurred on Tuesday evening, the 21st December, in the Chinese Saloon, General Patterson, President, in the Chair.

The display on this occasion comprised a collection of interesting plants from Mr. Cope's houses. Chrysanthemums from Mr. Parker. Pears in variety from Mrs. John B. Smith, of the following kinds of unusually fine qualities: Doyenne Sieulle, St. Germain, Jaminette, and Glout Morecaus, remarkably fine; from Thomas Hancock, the St. Germain and L'Eschasserie; from Isaac B. Baxter, the Broom Park and St. Germain; from Thomas P. James, the Inconnue, Van Mons, and St. Germain; from N. W. Roe, Winter Bon Chretien. Apples:—from N. W. Roe, Roman Stem and Newton Pippin; from R. Cornelius, Newton Pippin and Hayes; from Mrs. J. B. Smith, Reinette franche and Belle des Cois; from Peter Kuser, a number of seedlings. Of Vegetables—Anthony Felten, Jr., presented a very extensive display, and very fine tables from Robert Cornelius and Caleb Cope. A beautiful basket of cut flowers from R. Cornelius's houses, and a handsome bouquet from C. Cope's.

The following are the awards—By the Committee on Plants and Flowers—For the most interesting collection of plants in pots, to Thomas Meehan, gardener to C. Cope. For the best bouquet to the same; and for the second best basket of cut flowers, to Thomas Meghran, gardener to R. Cornelius. The committee noticed a specimen of *Centradenia floribunda*, a new plant from Mr. Cope's houses.

By the Committee on Fruit For the best one dozen Pears, to Mrs. John B. Smith's gardener, for the Jaminette; for the second best, to Thomas P. James, for the Inconnue Van Mons. For the best one dozen Apples, to N. W. Roe, for the Roman Stem; for the second best, to Thomas Meghran, gardener to R. Cornelius, for Newtown Pippin. And a special premium of one dollar to F. Guoin, gardener to Mrs. J. B. Smith, for a dish of very large specimens of Glout Morecaus Pears.

By the Committee on Vegetables—For the best and most interesting display by a market gardener, to Anthony Felten, Jr.; for the best by a private gardener, to Thomas Meghran, gardener to R. Cornelius; for the second best to Thomas Meehan, gardener to C. Cope.

Ad Interim Report of the Fruit Committee. The Fruit Committee respectfully submit the following *ad interim* report:

After their regular report had been presented and acted on, at the last stated meeting of the society, on the 16th of November, a specimen of the Belle Angevine Pear was exhibited by Richard Price, which had just been brought from France by Geo. D. Parrish. This specimen was of colossal size, weighing 33 ounces, and measuring six and a half inches in its longitudinal, and four and a half in its transverse diameter, and cost in Paris two dollars and forty cents. Belle Angevine is a fine cooking Pear. A model of it was sent to the society, this season, by Andre Leroy, of Angers, and was exhibited at the recent meeting of the Pomological Society. (It is now on the table.)

From Mr. Johnston—MAMMOTH HICKORY NUTS—grown at Pottstown in this State.

From James C. Vodges—SHELL-BARKS—grown near Norristown. These nuts were of immense size, measuring one and three-fourths inches in their longitudinal and one and five-eighths inches in their

transverse diameter. Weight half an ounce—oblong compressed—of fine quality.

From Charles Kessler, Reading—Two varieties of Apples. THE YOST. Rather large, two and three-eighths to three and three-fourths wide, roundish oblate, beautifully striped, and delicately mottled with crimson, on a yellow ground; stem short, less than one-fourth by one-sixth of an inch thick, inserted in a deep cavity; flesh yellowish, tender, juicy, pleasant flavor. "Very good" quality.

LONG STEM—below medium; roundish oblong, sometimes angular; skin red, in faint stripes, with a number of grey russet dots; stem long, thin; cavity medium acuminate; basin small, shallow, plaited; flesh greenish white, tender; agreeably subacid flavor, with Spitzenburg aroma; quality "very good." Not the Long Stem described by C. Cole.

From Mr. Houston, Reading—Two varieties of Apples. HOUSUM'S RED; large oblong, compressed at the sides; skin red, in stripes, yellow at the base; stem short, thick; cavity narrow, not deep, slightly russeted; basin moderately deep, plaited; flesh fine texture, tender, with delightful aroma; quality "very good" at least.

GLORIA MUNDI. Specimens very large and remarkably fair.

From Thomas P. James—Three varieties of Pears. FONDANTE DU BOIS; medium, obovate, juicy. "Very good."

FORELLE OF TROUT PEAR. Specimen unusually large, and exceedingly beautiful; quality "very good."

ST. GERMAIN.—Very fine specimen of this old variety.

From Peter Kuser, of Boyerstown, Pa., through Alan W. Corson. Twelve varieties of Apples, probably natives, as we do not recognize any of them as known varieties, except the Lecker, which is considered a Pennsylvania seedling.

YACHT. Medium, roundish, striped with red of various hues, on yellowish ground; stem half inch long, eighth thick; cavity open, obtuse; basin very shallow, plaited; flesh fine; texture tender, pleasant flavor. "Very good."

No. 2, a seedling. Medium size, roundish, oblate, sometimes compressed; skin greenish yellow, with russet dots on whitish elevations; faint blush to a bright carmine, sometimes in stripes on the exposed surface; stem $\frac{1}{2}$ inch long, by 1-9 inch thick; cavity rather deep, russeted in rays; basin medium, plaited; seed brown, short, plump, obtuse; flesh fine; texture tender; mild, pleasant flavor; quality "good."

MAUCK. Large, of fine appearance, conical, angular; skin greenish yellow, with a few russet dots, and on the exposed side a blush; stem short, thick; cavity, wide, irregular, deep; basin deeply furrowed; core large, hollow; seed light brown, short, plump, obtuse; flesh fine; texture tender, pleasant; quality "good."

No. 4, a seedling of Mr. Kuser's. Above medium in size, roundish, oblate; skin green with brownish stripes; stem long, slender; cavity acuminate; basin small, shallow, plaited; flesh greenish white, fine texture, sub-acid flavor; quality for the table scarcely "good."

LECKER, described by Thomas as Laquier with synonym Lacker. Medium roundish, oblate; skin striped, with crimson on a paler red, with numerous large, light dots; stem short and slender, sometimes stout; cavity russeted, narrow, rather deep; basin wide, deep, plaited; seed dark cinnamon, short, plump; flesh whitish, fine texture, tender, juicy, delicate aroma; quality "good" at least.

LONG KEEPING. Very small, roundish, stripes of

dull red on greenish ground. Its small size and uninviting exterior will probably prevent its general cultivation.

JOEL, a seedling of P. Kuser. Size below medium, somewhat oblate, usually compressed; skin greenish yellow, with small patches of green and elevated russet dots, and sometimes a faint blush; stem short, rather thick; cavity deep, narrow, russeted; basin narrow, of moderate depth, slightly plaited; flesh greenish yellow, rather dry.

BARR. Size medium, variable in form, usually roundish oblong, inclining to conical; skin striped, with red on a greenish yellow ground, sometimes a few small patches of green russet; stem short, rather thick, sometimes fleshy; cavity usually rather wide and deep; basin shallow, plaited; flesh greenish white, fine texture, tender, but deficient in flavor.

GIANT. Large, roundish, tapering to the crown; skin striped, with dull red in a mottled greyish ground, many light spots; stem long and slender; cavity moderately wide, deep; basin shallow, plaited; seed brown, short, plump, obtuse; flesh greenish white, fine texture, tender, agreeable flavor; "good quality."

KROWSER. Medium size, roundish, conical, sparseley striped with carmine on a greenish yellow ground; stem $\frac{1}{2}$ inch by 1-11; cavity narrow, obtuse; basin shallow, plaited; flesh tender, of fine texture, but deficient in flavor.

LATE KEEPING PIE. Medium size, oblate, compressed, tapering to the crown; skin greenish yellow, with numerous russet dots, and a carmine cheek; stem $\frac{1}{2}$ inch by 1-16; cavity wide, acuminate, russeted; basin shallow, plaited; not in eating order.

LESHER. Large, roundish, oblong, angular; skin greenish yellow, with number of minute russet dots, and faint blush; stem short, rather thick; cavity deep, russeted; basin rather wide, deep, somewhat furrowed; not in eating order.

The Treasurer's Semi-annual statement was read, and referred to the Committee on Finance.

The Library Committee submitted their annual report, showing an interesting condition. The total number of volumes composing it being one thousand, of which fifty-five are gifts from various sources. The entire cost of purchased books is over four thousand dollars, of which sum eighty-one dollars had been received from members for fines. An appropriation of three hundred dollars was ordered for the increase of the library.

The Committee for establishing premiums reported a schedule for 1853, which, after amendment, was adopted.

The amendment to the by-laws, proposed at the last stated meeting, was taken up and discussed, and referred to a special Committee of three to report.

The President submitted a copy of a letter which he had addressed to Commodore Perry, requesting a share of the seeds, bulbs, rare plants, &c., collected by the botanist in the projected Japan Expedition, for the use of the Society.

Five gentlemen were elected members.

THOS. P. JAMES,

Recording Secretary.

Warren County Agricultural Society.

At a meeting of the Warren County Agricultural Society, held at the borough of Yonngsville, on Wednesday, the 22d of December, the following were elected officers for the ensuing year:—Stephen Littlefield, President; James Younic, Treasurer; Patrick Falconer, Secretary; 44 Vice Presidents.

Pennsylvania Horticultural Society.

The stated meeting occurred Tuesday evening Jan. 18, in the Chinese Saloon, Dr. W. D. Brinckle, V. P., in the Chair. The severity of the weather precluded an extensive display, yet the commendable zeal which actuates Thomas Meehan, gardener to Mr. Cope, induced him to bring from a distance of some miles, a collection of beautiful flowering plants, much to his credit; in which were several of interest—the *Beloperone Amherstii*, new, and shown for the first time in bloom—*Raphiolepis indica*, a large plant in profuse flower, with about one dozen others. From the same source were a handsome bouquet set in a moss vase, and a large moss basket, displaying choice cut flowers; among the latter was a spike of an air plant the fragrant *Stanhopea maculata*, presenting a waxen-like appearance, and odd form. Robert Cornelius' gardener also brought a design and basket of select flowers. Benjamin Gulliss, a beautiful hand bouquet. Of fruit, Samuel Ott exhibited seven varieties of apples; Robert Cornelius' gardener, three kinds. Mrs. J. B. Smith, seven varieties of pears, some of them very fine; and Isaac B. Baxter, a dish of Passe Colmar pears. Thomas Meghran, gardener to R. Cornelius, a fine display of Vegetables.

The Committee on plants and flowers reported the following awards:—*Plants in pots*—for the best twelve to Thomas Meehan, gardener to C. Cope. *Plant in a pot*—for the best specimen *Raphiolepis indica*, to the same. *Bouquet design*—for the best, to Thomas Meghran; for the second best, to Thomas Meehan; for the best hand bouquet, to Benj. Gulliss; for the best basket of cut flowers, to Thos. Meehan; and for the second best, to Thos. Meghran.

The Committee on fruits report as follows:

Pears.—For the best ten specimens, Passe Colmar, to Isaac B. Baxter; for the second best, the Buerre d'Anjou, to F. Gouin, gardener to Mrs. Smith. *Apples*.—For the best ten specimens, the Newtown Pippin, to Samuel Ott; for the next best, the same kind, to Thomas Meghran.

The Committee notice a fine collection of Fruit, preserved in jars and cans by Dr. J. H. Fromberger, of Delaware City, which they will examine hereafter, and give the result in the next ad interim report.

The Committee on vegetables awarded the premium for the best display, by a private gardener, to Thomas Meghran, gardener to R. Cornelius.

AD INTERIM REPORT.

PHILADELPHIA, Jan. 17, 1853.

To the President Pennsylvania Horticultural Society:
The Fruit Committee, in submitting their usual ad interim report, embrace the opportunity of returning their thanks to those contributors who have, at various times, so kindly and generously placed before them specimens of so many of the native fruits of Pennsylvania. Believing, as we do, from the evidence already in our possession, that our Commonwealth contains many choice varieties of fruit; that her soil and climate are naturally well adapted to its culture; and that her horticultural resources require, for their development, combined action as well individual exertion—we hail with pleasure the efforts now being made for the organization of a State Pomological Society.

Since the stated meeting of our Society in December, the following fruits have been submitted for examination:
From Mr. Nicholas Lott, of Reading, through Mr. H. F. Boas—Specimens of the Reading pear. This variety is extensively cultivated in the vicinity of Reading, and is believed to be a native of Berks county. Size medium, pyriform, tapering to the crown; skin greenish yellow, with numerous russet dots; stem an inch long, slender; basin narrow and superficial; flesh greenish white, abounding in juices of a mild and agreeable flavor; quality at least "good."

From Mr. Charles Kessler, also fine specimens of the above pear.
From Mr. Paschall Morris, of West Chester.—An apple known to the grower, who resides in the lower part of Chester county, "only by the name of the White Spitzenburg." "The tree," Mr. Morris remarks, "is 12 or 14 years old, and has produced this season over four barrels of fruit. It is a constant bearer every year, and the fruit is always fair, and will keep till March." Size rather large, roundish oblong; skin greenish yellow, with a faint blush; stem short, rather stout, inserted in a deep, open cavity; basin moderately deep, furrowed; flesh tender pleasant, "good."

From Mr. D. Housum—More specimens of Housum's Red, which fully sustain the favorable opinion given of it in our last ad interim report. Mr. Housum informs us that the specimens were from a tree in Lebanon county; and that it is believed to be a native of Berks county; period of maturity from October to February.

From Mr. D. Housum—Specimens of a seedling apple from the premises of Mr. John Bechtold, near Stouchburg. Size medium, green-

ish becoming yellowish white, with sometimes a faint orange blush; stem $\frac{3}{4}$ an inch by 1-11, inserted in a narrow, rather deep cavity; calyx medium; basin shallow, irregular; fine texture, "good." In season from October to March.

From Mr. Chas. Kessler, of Reading—Specimens of the following four varieties of Apples:

1. A native apple, small, roundish, oblate, nearly covered with red, in stripes, on a whitish yellow ground; stem short, inserted in a wide, deep cavity; calyx small, closed; basin wide, moderately deep; flesh yellowish white, tender, with a splay, saccharine flavor; quality "very good." Well adapted for the table at evening parties.

2. Another native apple, small, roundish oblong, mottled, and sparsely striped with red on a greenish yellow ground, containing many elevated russet dots. It possesses no redeeming qualities to compensate for its inferior size, and uninviting exterior.

3. A large apple, from a tree fifteen years old, worked on a quince stock; oblate, of a beautiful orange color, and exceedingly fine; stem short; calyx large, open; basin wide and moderately deep. Its attractive appearance is its chief recommendation.

4. The Kelm, a native of Berks county; small, roundish, inclining to a flat, of a waxen yellowish white color; stem long, slender, inserted in a wide shallow cavity; calyx small, closed, set in a pitted, narrow, very superficial basin; flesh white, tender, "good."

The Committee of Finance reported upon the Treasurer's semi-annual statement, noting that they found the same correct, and alluding to the favorable condition of the investments, concluding with the recommendation of the re-election of the present Treasurer.

The Library Committee reported the names of members delinquent for fines due.

The special Committee to whom was referred the proposed amendments, submitted a report, which, on motion, lies over for consideration.

A package containing a specimen of a new kind of pea, accompanying which was a very interesting communication, giving its history, from A. H. Ernst, of the Cincinnati Horticultural Society, which was read and the peas referred to the Committee for the Distribution of Seeds, &c.

A small box of California Seeds was presented in the name of C. A. Shelton, of Sacramento City, and referred to the Committee. Adjourned.

THOS. P. JAMES, Rec. Sec.

The ANNUAL MEETING was organized by calling CALEB COPE to the Chair, and appointing CHAS. P. HAYES Secretary, and the election proceeded with, which resulted in the re-election of the following officers:

President—Gen. ROBERT PATTERSON.
Vice Presidents—James Dundas, Joshua Longstreth, E. W. Keyser, W. D. Brinckle.
Treasurer—John Thomas.
Corresponding Secretary—Thomas C. Percival.
Recording Secretary—Thomas P. James.
Professor of Entomology—Samuel S. Haldeman, A. M.
Professor of Botany—Wm. Darlington, M. D.
Professor of Horticultural Chemistry—Robt. Hare, M. D.

Centre County Agricultural Society.

We have received from our friend, J. M. McMinn, a full account of the first exhibition of this Society, which appears to have been a very spirited one, and augurs well for the future. We regret that our space will not allow us to publish the awards of premiums in extenso. We copy the following:

"This Exhibition was held on the 6th, 7th and 8th of October, on the farm of H. N. McAllister, Esq., a short distance to the east of the borough of Bellfonte. It was extremely creditable to our county, and all were gratified with the fine display of the productions of our farms and gardens. Very few articles of inferior worth were presented, and the judges acknowledged their inability to discriminate justly, in almost every department of the Exhibition."

"The whole Exhibition exceeded the most sanguine expectations of its most ardent friends, and great credit is due to the exhibitors, many of whom spared neither pains nor expense to make it respectable: especially is praise due to our very worthy citizen, H. N. McAllister, who gratuitously furnished grounds, buildings, and every facility for the exhibition, and whose large display of stock and agricultural implements contributed so largely to the interest of the exhibition."

The display appears to have embraced, besides agricultural implements, a large number of very fine horses, of high blood, and also for draught. Thorough bred and grade cattle, most of the former of Devon blood. Sheep of a cross between the Bakewell and Southdown; swine, poultry, dairy products and honey. Fruit in considerable variety and of very fine quality, consisting of apples, pears, plums, peaches, quinces and grapes. Of the latter, W. G. Waring exhibited specimens of a new native seedling, called the "jelly grape." J. M. McMinn also exhibited a new native grape, of a "peculiar spicy flavor." We should be pleased to have a few cuttings of these for testing in this region.

A good display of large specimens of vegetables was also made, and samples of wheat, corn and other grains; timothy hay, flowers, and articles of domestic manufacture; the latter quite extensive. There was also a ploughing match, and a trial of the subsoil, which "worked well."

Tredyffrin Township, Chester County Agricultural Society.

The first anniversary meeting of the Tredyffrin Agricultural Society, was held at the Society's room (Centreville,) on Monday evening, the 3d instant, when the following persons were elected Officers of the Society for the ensuing year, viz:

President—Jacob Massey.
Vice President—Wm. Walker, Sen.
Recording Secretary—Joshua Jones, Jr.
Corresponding Secretary—Isaac R. Walker.
Treasurer—Charles D. Massey.
Librarian—Evans Kendall.
Auditors—Samuel Beaver, (farmer,) Jos. B. Walker, T. Ivins Walker.

The following specimens of seeds were received from Messrs. Paschall Morris & Co., West Chester.

Genesee Wheat, Italian Rye, Grass, Orchard Grass, and Herd Grass Seed, which elicited much attention and praise. A resolution was passed requesting all persons who have seeds to dispose of, to send specimens to the care of the Librarian, Centreville. If sent by the Railroad, they can be left at Mifflin Lewis's, Eagle Station, Columbia Railroad, with the prices, and other particulars attached.

A committee was appointed to purchase books and periodicals for the Library, to the amount of \$25, that being the amount in the Treasury.

Several persons became members of the Society on Monday evening, and there seems to be quite a disposition to encourage the institution.

Berks County Agricultural and Horticultural Society.

At the second annual meeting of the Berks County Agricultural and Horticultural Society, held on Tuesday, Jan-

uary 11, 1853, in the Court House, in the city of Reading, the following were elected officers for the ensuing year.

President—Dr. John P. Heister.
Vice Presidents—Henry Shubert, Henry S. Kupp.
Corresponding Secretary—Augustus F. Boas.
Recording Secretary—Reuben F. Brown.
Treasurer—Adam Leize.

WORK FOR THE MONTH.

FARM.—This may be called the last leisure month with the farmer, previous to commencing active operations out of doors. But little more can be said than to observe directions of last month. Have a full supply of wood, to last during the whole season, cut up and stored away, ready for use. Have all plows and other implements and tools examined and put in perfect order; also gears. Haul fencing materials where they are to be used. Make daily use of the card on all cows, calves, and fattening animals.

FRUIT ORCHARD.—Take off cuttings of gooseberries and currants, and bury them $\frac{2}{3}$ of their length in the earth, till wanted for planting out; also quince cuttings, grafts of apple, pear, plum, cherries, peaches, may now be taken and preserved in damp saw-dust, or earth till wanted. The two latter must be cut before any swelling of the buds has taken place. Grafting the cherry will not succeed unless performed very early. Budded peach trees which have missed, may be successfully side-grafted, if the buds have not swollen. Mulch, during this month of comparative leisure, all young fruit trees. Pruning may now be attended to. Head down all apple and other trees of worthless varieties which are for grafting and forming new tops. Leave some of the lower branches for removal another season. If limbs are too large for grafting, the young shoots which will be thrown out, may be budded the following fall, or reserved for grafting the following spring. Two seasons, at least, should be occupied in changing the heads of large trees. A pole pruning-saw, pole-chisel, and pole pruning-shears, are necessary to perform this operation thoroughly. Cut out all inside shoots and branches, which crowd the head, and are useless. Those limbs which have free access to sun and air, are the fruit-bearing and productive ones. Branches should radiate from the trunk, something after the fashion of an umbrella. When large limbs are removed, coat the surface of the wood with shellac dissolved in alcohol, to about the consistency of paint. Go round every peach tree and shorten in the last year's growth, about one-third, with the pole pruning-shears. This has been very fully proven to result in larger and finer fruit, and may be applied to other trees besides the peach. Apply the wash, before recommended, to trunk and large limbs. Grape-vines should be pruned without delay. Trim gooseberries and currants, by cutting out old wood and branches near the ground, so as to give somewhat of the tree shape.

Cut off at ground old raspberry-wood of last year's bearing, and shorten in the new growth one-third. Leave only four or five stalks to each plant. Raspberries must be well manured to be productive, and moved to a new place at least once in five years. If frost should be out of ground by last of month, strawberry beds may be raked over, and short manure dug in between rows. A good coat of ashes should be spread over the whole bed.

FLOWER GARDEN.—See directions for previous months.

VEGETABLE GARDEN.—Manures should now be composted and prepared for frames. Turn over occasionally to allow hot steam to pass off. From the middle to the last of this month, frames may be set up, and some cabbage, lettuce, radish, tomatoes, egg-plant and pepper-seed sown for early planting. The two latter require rather more heat than the others, and should have a separate frame, and never allowed to become chilled. Select a sheltered place for hot beds on the south side of a building or tight fence.

After seed is sown, constant attention is required. Cover with straw mats in nights and in cold weather, and give air occasionally on fine days.

Should it be necessary to let off steam, cover with something to keep out cold, and prevent a check to bed or plants. Radish and Beet seed, early varieties, may be sown on a rich warm border in open ground, for early use, as soon as frost is out of the ground. Cover with straw in severe weather.

By latter part of month, Extra Early Peas may be planted in rows for early crop, and also Potatoes. Rhubarb may be forced by covering plants with a barrel, and filling up with manure. Continue to give air on fine days to plants of last years sowing, in cold and forcing frames.

By last of month, if weather is open, fork in manure on asparagus beds, and give a plentiful dressing of salt.

Guenon on Milch Cows.

In answer to applications from different sections of the State, for "Guenon on milch cows," we reply it can be furnished by mail for 37½ cents, remitted postage paid in advance.

LIST OF PATENT CLAIMS

Issued from the United States Patent Office.

We shall hereafter continue a monthly notice of all patents issued from the Patent Office relating to agricultural implements and machinery, for the month preceding the issue of our paper.

RAKES TO GRAIN HARVESTERS.—By Jearum Atkins, of Chelsea, Ill.: I do not confine myself to the exact mechanical devices and arrangements described, for operating the rake, as they may be modified, or others substituted for them.

I claim the combination of the crane post, rock-shaft, and crank, to operate the jointed arm and

hands, which collect the grain in gabels, and deposit it in rear of the harvester, as specified, as the machinery moves forward, when applied to machines for harvesting any grain which requires to be collected and deposited, the combination being connected by gearing with the driving wheel of the harvester, and operating through mechanical devices, substantially as described, as an automaton, to perform the above specified operations.

STRAW CUTTERS.—By Warren Gale, of Louisville, Ky.: I claim constructing the rotating cutting cylinder, substantially as described, with a series of parallel annular grooves and ridges, and a series of cutting arms or knives, in combination with a series of fixed knives, so arranged that they enter the grooves and interlock or lap past the annular ridges on the cylinder, and thereby prevent the stalks of straw, &c., from descending between the fixed knives and cylinder, without being cut, substantially as set forth.

Plows.—By Wm. A. Gates, of Mount Comfort, Tenn.: I claim the rhomboidal plate, bent on one of its diagonals, and constructed and arranged substantially as described, so that either leaf can be used as a land-side or share, at pleasure, the edges of the share becoming, when the plate is reversed, the edges of the land-side, and those of the land-side, the edges of the share, in the manner and for the purposes specified.

GRAIN THRESHERS AND CLEANERS.—By J. Jones & Alex. Lyle, of Rochester, N. Y.: We claim the combination of the upright threshing and separating cylinders with the upright concave and cylindrical sieves operating in the manner set forth.

MAIZE HARVESTERS.—By J. L. Ream, of Mount Pulaski, Ill.: I claim the arrangement of the shaft of the receiving arms, with one end resting upon the cutter bar piece, thereby dispensing with an intermediate platform, so that the cut stalks will fall directly upon the receiving arms, and be thence discharged in bundles upon the ground as set forth.

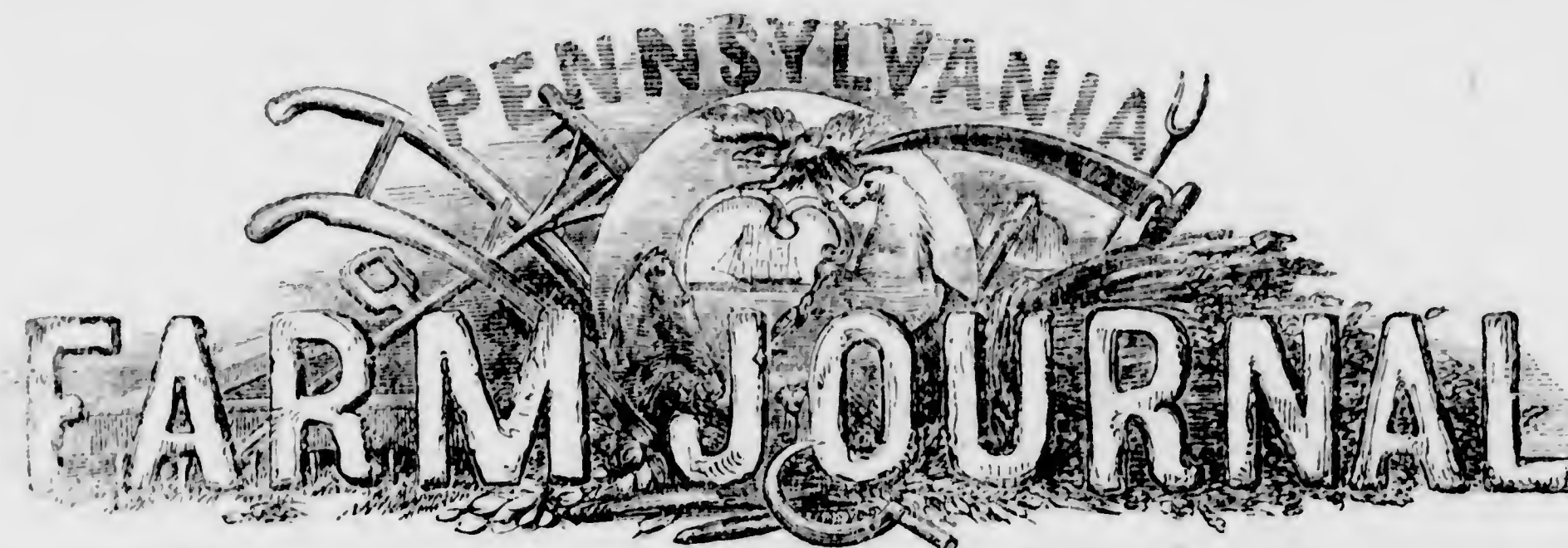
FULLING MILLS.—By Wm. E. Underwood, of Middlefield, Mass.: I claim the combination of the stop mechanism or its equivalent, with the screw pulley and the elastic band leading to the pulley on the upper roller, whereby the whole machine is stopped, when the motion of the cloth is arrested in the manner described, and ceases to impart motion to the upper roller.

WINNOWER MACHINES.—By Samuel Canby, of Ellicott's Mills, Md.: I claim the combination of the piston, rack-rods, pinion, valves and eccentric pulley, in connection with a conducting chest and blower, for the automatic graduation or government of the blast through the spouts, of a winnowing machine, arranged and operating in the manner and for the purpose set forth.

HECKLING FLAX AND HEMP.—By J. P. Arnold, of Louisville, Ky.: I do not confine myself to any particular form or arrangement of the parts, so long as the machine is so constructed that it will operate as set forth.

I claim the method of heckling hemp by subjecting it to the action of a series of mixed beaters and combs, the teeth of the latter being of varying length—some of them projecting so far, and others beyond the beaters, and the whole operating substantially as set forth.

Also, a rest, having a narrow slot open at one end in combination with a concave projecting beyond the end of the cylinder at the open end of the rest, as set forth.—*Scientific American*.



VOL. 2. WEST CHESTER, PA., MARCH, 1853. NO. 12.

THE FARM JOURNAL.

J. L. DARLINGTON, EDITOR.

A. M. SPANGLER, ASSISTANT EDITOR.

AGENTS.

THE FARM JOURNAL may be had at the following places:—

W. B. ZIEBER, South 3d, St., principal Agent for Philadelphia.

C. M. SAXTON, 152, Fulton st., New York.

W. H. SPANGLER, - - Lancaster, Pa.

B. F. SPANGLER, - - - Columbia, Pa.

GEO. BERGNER, - - - Harrisburg, Pa.

H. MINER, - - - - - Pittsburg, Pa.

J. R. SHRYOCK, - - - Chambersburg, Pa.

H. M. RAWLINS, - - - Carlisle, Pa.

A. L. WARFIELD, - - - York, Pa.

WM. DOMER, of Altoona, Blair County, is our authorized agent for Blair and Centre counties.

A. E. BRADY, Cumberland and Perry counties.

JOS. PRESTON, Kennett Square, for Chester and Delaware counties.

JONATHAN DORWART, Lancaster county.

AMBROSE POULTON, Buckingham, for Bucks co.,

SAMUEL H. WOOD, Norristown, for Montgomery co.

And of Booksellers generally.

Root Culture.

The cultivation of roots for stock, either as a main alternating crop, or even an important adjunct to our winter supplies, has as yet made but little progress in Pennsylvania. We hold it to be part of the improved system of farm management which is slowly but surely making its way to public favor, and is certain eventually, to make an important item of our farm products.

Like many other innovations on the old system, the progress of root culture has been retarded by too much being claimed for it. We do not believe that in the United States, for feeding and fattening stock, roots are ever going to supplant Indian corn, which has been aptly styled both meal, meadow and manure, and without doubt makes a return per acre more intrinsically valuable than any other known product of the soil.

In England, where the culture of turnips and other roots, is considered the basis of good husbandry, as well also as in Flanders, Germany and France, our Indian corn does not flourish to the same degree as here, and there can be no argument drawn from thence to induce the cultivation of roots here to anything approaching the same extent.

Indian corn yields, on analysis, about 90 per cent., or on a crop of 60 bushels to the acre, over 3,100 lbs. of nutritive matter, to say nothing of the value of the fodder and the cobs. Turnips, sugar-beets, carrots yield on the other hand, by analysis, 85 to 90 per cent. of water, with only 10 to 15 per cent. of nutritive matter. 'Tis only on account of the large yield per acre, that any favorable comparison can be made. An acre of land, under good cultivation, can be made to yield 30 tons of turnips or carrots, or 60,000 lbs. Ten per cent. of nutritive matter, will be 6,000 lbs. This, however, is a full crop, and to make the comparison more just, the corn should be put up to 80 or 100 bushels per acre, which will give it the precedence over the roots, considering the value of the fodder. Roots compare more favorably with wheat, oats, or barley. Thirty bushels of wheat to the acre, yields only 1800 lbs. Oats about the same weight at 60 bushels to the acre. We value root crops not as a substitute in feeding or fattening, for Indian corn or oats, but as an important adjunct, by which they can each be made more efficient, and we think it the interest of every farmer who has 100 acres of land, to appropriate at least one or two acres to their culture. They yield, in the first place, a very large amount of nutritive matter per acre. They are not so exhausting to the soil as grain crops, but meliorate and improve it, and by their succulent and juicy nature, afford a fair substitute for grass, promoting health and digestion, and by this indirect action, increase the value of other food, enable the farmer to winter more stock, and greatly augment the heap of the barn-yard. In England, cattle are fattened on turnips. There is no occasion to try this here. Where the food is so little concentrated, it must of course

take much longer than where grain is used. Neither must the value of any food be judged entirely by the degree of concentration of nutritive matter. Highly concentrated food alone, would not support life or health in animals without a certain amount of bulky materials to produce the requisite expansion.

All fattening animals should have a certain portion of roots each day through the winter, but they are particularly necessary for cows, young stock and sheep. Cows in milk may thus be kept in profit through the winter. When carrots are used, it imparts a pleasant flavor to milk and butter, and the latter has a fine yellow color, nearly equal to that from grass. Stock fed with roots, have usually fine, sleek coats, and they continue *thriving* through a period, when the farmer is often satisfied, if he can take them out to pasture in *as good condition* as they were put into the yard in the fall.

White and ruta бага turnips, sugar-beets, carrots, parsnips, potatoes, cabbages, are all used with more or less favor in different sections of the country as food for stock. We have had some experience with each of these, and raised one season 1200 bushels of sugar-beets, which we fed with great advantage. They require to be gathered before hard frosts, which affect a chemical change in the saccharine matter, on which their value much depends. The difference of opinion as to the value of the sugar-beet, is, perhaps, owing to neglect in this particular.

The ruta бага is easily raised, producing 1,000 bushels to the acre, and interferes less with the farmers time at the busy season than either beets or carrots, but they are not so nutritious. After sowing about midsummer, no attention is required till after harvest. In corn, oats, wheat, the predominating principle is starch in connection with gluten. In potatoes starch is united with albumen in about the same proportions as with gluten in wheat. Turnips have less starch and nitrogenous compounds than parsnips or carrots, and also less sugar. Beets contain about 10 per cent. of sugar, and carrots and parsnips 5 to 7 per cent.

According to Johnston, an acre of carrots, of 1000 bushels, of 60 lbs. each, contains more nutritive matter than any other crop of either roots or grain, excepting Indian corn at 100 bushels to the acre, and even this if the value of the fodder is not estimated. Carrots require more of the season to mature than either of the other crops mentioned, and greater care in management, but from the experience of some of our best cultivators, we are inclined to think, are, on the whole, to be preferred. The seed is long in vegetating, and is apt to be choked with the weeds, but this is the *fault* of the farmer, and may easily be prevented. In all root crops, but especially with carrots, let the ground be thoroughly plowed and subsoiled very early in the spring, if not done in the fall, which is better, and then harrow thoroughly at

least once a week till planting time. Every harrowing will destroy millions of weeds, by exposure to hot sun, as fast as they germinate, and we have been surprised at the effects of this, in producing clean tillage for the subsequent growth of the crop. An excellent plan, recommended by, and we believe originating with Professor Mapes, is to sow long scarlet radish in equal parts with the carrots. These come up quickly, serving to indicate the rows, admitting of early work with the cultivator, and when pulled up, either to market or for the manure heap loosen the soil around the carrot, and promote its growth. For particular directions for cultivating carrots, we refer to our last number, and the premium crops of Professor Wilkinson of Mount Airy—1017 bushels to the acre. The long orange carrot we prefer. Two to three lbs. of seed will be sufficient, and allow for thinning out. It should only be planted $\frac{1}{2}$ an inch deep. If well rubbed between the hands, it will prevent its sticking together. In all root culture, it should be remembered ploughing and subsoiling, heavy manuring with barn-yard manure or guano, the latter at the rate of 500 or 600 lbs to the acre are indispensable to success. Carrots are latterly much in demand as food for horses, and sell readily at the livery stables in our large cities, from 35 to 50 cents per bushel. The proportion of two bushels of oats, and one of carrots, keeps a horse in finer condition, and gives a better coat than 3 bushels of oats.

Directions for Planting Trees.

As the season is at hand for planting out fruit and ornamental trees, we give a few plain directions. It is a hackneyed subject, but it is of so much consequence, to be correctly done, that we may be excused for calling attention to it again at this time. There are many exceptions 'tis true, but from our own observation, it appears to be the *general* impression that the planter discharges his *whole duty* by incurring the expense of paying the nurseryman for a tree, taking it home, and covering the roots, crammed into a small hole, with earth enough to keep it in an upright position, or, perhaps, in some cases, with extra care, preventing its falling over by being secured to a stake. Other more important duties then engage his attention, and if the tree does not thrive, or gets broken down by the cattle, or if, within a short time, it does not produce some very fine fruit, equal to any in the market, the conclusion at once is come to that there must be some mistake in the variety or in the healthiness of the tree, or that fruit-growing is unprofitable.

Now, it should be recollected that a tree or shrub is an organized living structure, having organs of nutrition, circulation growth, assimilation, and that every violent injury to these, or interruption to their functions, as in transplanting, affects, *more or less* its health and vitality. The *object* in planting

is to place it under circumstances to resume these functions, with the least injury and delay, and to promote its future growth and vigor. First, in respect to preparing holes: the size of these depends on the size of the roots, but should be at least one to two feet wider than they reach, so as to admit of their extending readily in their early growth into the *loose* earth. They should be about two feet deep, and surface soil, leaf mould or a compost formed of two parts rich earth, with one part of barn-yard manure prepared some months beforehand, be filled in around the roots and small fibres, the poorest earth being placed on the surface. Some planters make holes 5 to 6 feet in diameter. The larger the hole and quantity of rich, loose earth, the more rapid will be the growth, and earlier the profit.

Avoid especially deep planting, one of the most common errors, and most fatal. After the earth is settled, the tree should stand about the same depth as before. Pulverize the earth well, and when the hole is $\frac{2}{3}$ full, a bucket of water poured in settles it well and thoroughly about the fibres, leaving no hollows which often cause decay, but bringing it into contact with every part. Avoid the too common practice of settling the earth among the roots, by shaking the tree up and down, which brings them into a vertical and unnatural position. When the remainder of the hole is filling up, press the foot around the tree, to establish it firmly, and secure with a stake, to prevent being disturbed by the winds. Any roots which may have been injured in taking up, should be carefully cut off at the end, with a sharp knife, from the under side. If there has been much mutilation, the top and branches should be shortened in, to restore the balance of the system, or the evaporation from the leaves may be greater than the roots can supply. After planting, mulch the ground with short litter, of any kind, leaves, tan, &c., which keeps the ground damp, and is greatly preferable to frequent surface watering, which bakes the soil, and prevents the fertilizing influence of the atmosphere.

As soon as convenient after the tree is planted, apply with a white-wash brush, soft-soap and lye in equal parts, to the body and limbs. The check to growth consequent upon transplanting, affects the bark unfavorably, making it dry and hard, and of sluggish circulation. If more convenient, the proportion of a pound of potash, dissolved in a gallon of water, will answer the same purpose. It brightens and cleans the bark, and we have found it very useful.

In addition to mulching, cherry trees, particularly of large size, should have, the first summer, rye straw tied up their trunks, to avoid the effect of the hot sun. They generally branch higher up than other trees, exposing more of the trunk, and we think can often be saved by this method. There are more

frequent failures in transplanting cherry than other fruit trees.

Trees should not be planted for orchard culture in ground laid down to grass, but should be kept under cultivation for a few years, at least. A crop of corn will be no injury the first season, if the exhaustion of the soil is made up, and afterwards, potatoes or other hoed crops should only be admitted. Clover may be sown, and remain for a couple of years, and then be plowed down, as an alternation, with potatoes or other roots. When this is done, care must be taken to leave no rubbish as harbor for mice. As regards varieties of fruit, we refer to list in former number, of American Pomological Society, merely premising that we have fears that some of the fine eastern fruits are not to prove so desirable in Pennsylvania, and that it will be safer to plant *extensively* only of such kinds as have been well and fully proven to be adapted to our soil and climate. We would by no means discard all that have not been proven here, but plant moderately of them.

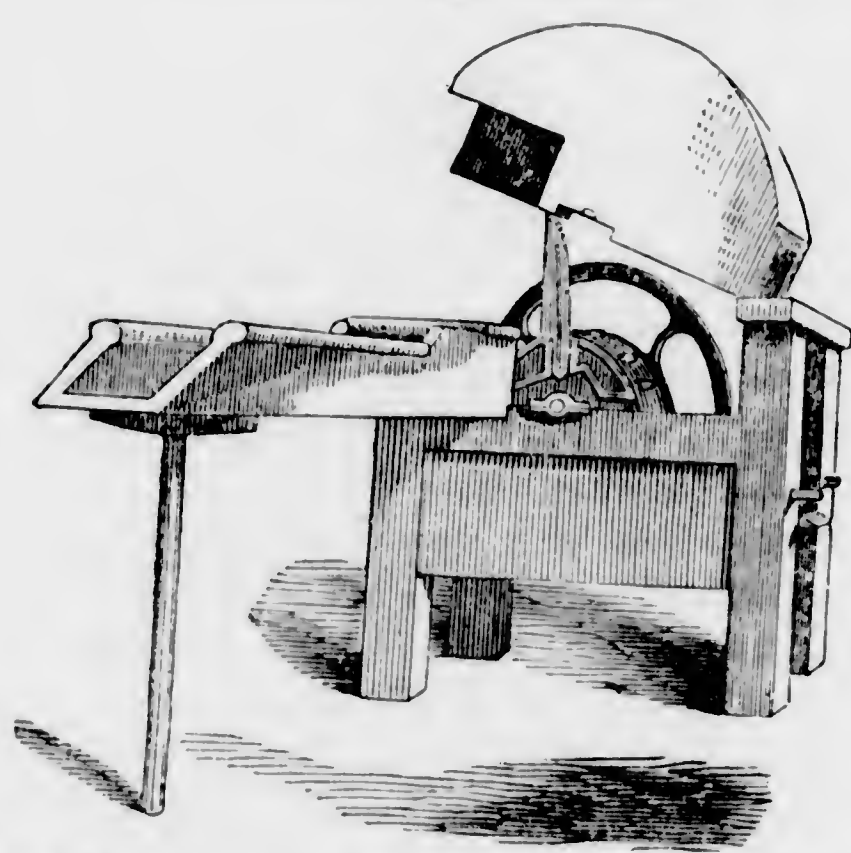
Wash for Fruit Trees.

Some years ago, we were called on by a man named Peter, and hailing from New Jersey. He had pruning materials with him, and offered to perform that operation, and also to put unhealthy and unproductive trees into speedy bearing condition. We gave him employment for a few days among our trees, and after pruning was all performed, with some interest, went around with him to find out his application to promote fruitfulness, and which he called his *panacea*.

We took him to the first tree old enough to bear, telling him, "Peter, this tree seems big enough to have fruit, has been standing in good soil for several years, what had better be done?" Peter would walk round and round the tree, very quietly examine every part of it, and pausing for a minute or two, as in deep thought, would break forth thus:—"Well now Mr. —, *in my opinion*, the *best* thing for this tree, is to get some soft soap and lye, mix them half and half, take a white wash brush and rub with this mixture *up and down* to trunk and branches." This seemed very reasonable, and we would pass on to the next, remarking, "Peter, here is a tree differently affected from the other, *that* had been making very little growth, but this appears to have grown rapidly, still there is no fruit; what had better be done with *this* subject?" Peter would appear puzzled, would reflect a little longer than before, passing around and around the tree, scrutinizing every part very closely, and then break forth again, "well now, Mr. —, *in my opinion*, (laying considerable emphasis) the *best* thing for this tree, is to get some soft soap and lye, mix them *half and half*, take a white wash brush and rub with this mixture *up and down* to trunk and branches."

We would then pass on to a third subject, a plum tree having the excrecences on the branches, remarking, "here is entirely a different disease from either of the others, what can be done here." Peter would walk round and round as before, eyeing the tree most carefully, and deliberately, as if working out some abstruse question in metaphysics, and after considerable pause, like a physician in a critical case, would remark, "well now Mr. —, in my opinion, the best thing for *this tree* (emphasizing the word as if a new recipe was coming) is to get some soft soap and lye, mix them *half and half*, take a white wash brush and rub with this mixture *up and down*."

Much amused, we took him to a Sugar Maple, healthy and vigorous; but with two or three limbs broken and the bark somewhat scaled by another tree falling on it. "Peter, what had better be done here?" He seemed somewhat confounded, examined the tree as before, paused awhile as if in profound thought, and with the greatest gravity remarked—"well now Mr. —, in my opinion, the best thing for *this tree*, is to get some soft soap and lye, mix them half and half, take a white wash brush and rub with the mixture *up and down*." It was useless to go farther. Peter was evidently a man of one idea. We followed his advice, however, and found so much benefit from the application to all our fruit trees, that we have recommended it with confidence ever since. Peter scraped the bark off an old Queen apple tree, and applied his mixture pretty copiously, and the next season we had a greatly increased crop of fine fruit. It is a mixture convenient to most farmers.



Potts' Patent Corn Stalk Cutter and Crusher.

The above is a cut of an excellent machine for this purpose, which is now being considerably used in this neighborhood, and works very satisfactorily. Our position makes us feel some hesitation about a strong recommendation of new implements, but this cutter and crusher has been well tested in West Chester and vicinity. Enos Smedley, an account of whose experiments with cut fodder we gave in last number, says, "he has cut with it two bushels of fodder in one

minute, and thinks it would work at that rate all day." He has also cut with it a dozen large sheaves of oats in one minute. It is constructed on the principle of the spike grain thresher.

It can be obtained at the Agricultural Warehouse in West Chester, and forwarded to any part of the country. Price, \$28.

Italian Rye Grass.

Can any of our readers give us their experience with this grass, the "*Lolium Perenne*" of Botanists? Some of our Chester county farmers have used it on a limited scale, and speak of it in the highest terms, as being of rapid growth, and preferred by stock even to our natural green grass, "*Poa Pratensis*." It is called *Perennial Rye Grass*, from its habit of continued growth through the season, and has been found here to keep green longer than any other variety. The stock keep it eaten down very close. It is supposed by some to be preferable to timothy, for mixing with clover, and will bear frequent cutting. Knowing that it had been considerably grown in the State of Delaware, we addressed a letter of inquiry to Barney Reybold, from which we extract the following:

In answer to your enquiries I would say, that my experience in its use, has been, that Cattle, Sheep or Horses prefer it either for pasture or hay, to timothy; for pasture it will afford more feed, than any other kind of grass, in fact, it requires to be fed close to keep it from getting rank and going to seed. The quantity to be sown per acre is one peck if sown with Clover, and two pecks if sown alone; I sow it either in the fall or spring; I think it takes the best in the fall, but it does well in the spring, the same time you sow Clover. It ripens for mowing one or two days earlier than Red Clover; it is therefore better to be sown with Clover than Timothy. Its fattening qualities are equal to the best natural green grass.

In the English works we have examined, it would appear to be annual or perennial according to good or bad soil, being in the latter only annual. It is recommended by some, and considerably used for lawns, where a compact sod is desired.

We should be pleased to hear more about it from some other correspondents.

A hog of the Chester county breed, raised and fed by William Ingraham, of West Chester, was recently slaughtered, whose weight was 416 lbs. Nine months old.

The aggregate wealth of the United States amounts to \$12,000,000,000, and the population to 24,000,000 of souls. The wealth divided by the population gives \$500 to each person, young and old; and counting five persons to each family, it would give the handsome little fortune of \$2,000.

ENGLISH GAME, brought by the steamers, is quite common in New York market. English pheasants sell at five dollars a pair, and hares at two dollars and fifty cents each.

Japan Pea.

We introduce the following interesting correspondence from a Boston paper, relating to the "Japan Pea," which is now exciting some attention as a new article of farm crops. *The whole plant with the seed*, is recommended as excellent for fattening hogs and cattle.

MASSACHUSETTS HORTICULTURAL SOCIETY.—The accompanying letter from Mr. Ernst, was read at the last meeting of the Society, and being deemed of sufficient importance to the Agricultural community, it was ordered to be published.

SPRING GARDEN, Cincinnati, Ohio, Jan. 11th, 1853. My Dear Sir: I herewith send you for distribution amongst the members of the M. H. Society, a small parcel of peas.

The growth of the plant is peculiar, being of an upright and stiff form, somewhat branching; the leaves are large, light-green and downy beneath; the blossom is small, and of lilac-color; seed-pods numerous, small and woolly; growing in clusters over the entire plant, proving very productive.

Its habit of growth is such as to fit it to withstand severe storms; and, should it prove valuable as food for cattle, it must commend itself to the agricultural community in field culture.

In its cultivation it evidently requires room, to enable the plant a full development for branching. Its bearing properties are immense.

Accompanying the seeds, I send a plant, to show its habits of growth and bearing properties.

Its origin is said to have been Japan. It was introduced into this country some two years since by the agency of one of those calamities which sometimes result in benefit to mankind.

An American ship encountered a Japan vessel in distress, and the crew were carried to San Francisco, California. Amongst the stores which were transferred was the "Japan pea," a few of which found their way into the hands of Dr. Edwards, of Alton, Ill. He handed them over to Mr. J. H. Ladd, a distinguished horticulturist, who presented the produce to our society. Those now sent you were grown in my grounds; having fully matured in our climate. Your climate may prove too severe.

I have sent small packages of seed to kindred associations, with the request that they be placed in careful hands.

It is possible that it may not be any thing new with you. I would be thankful for any information you may possess in reference to it.

Very respectfully,

A. H. ERNST.

The plants and seeds were submitted to the inspection of the Society's distinguished botanist and vegetable physiologist, J. E. Teschemacher, Esq., and in return, received the following note:

My Dear Sir: The plant alluded to by Mr. Ernst, is *Cajanus bicolor*, a native of East Indies, Amboyna, Japan, &c.; flower small, interior yellow, vexillum purple, erect shrub, pubescent, nearest in alliance to *Lupinus*. The seeds are good to eat, and, when young, very delicate. On soaking the round seeds for an hour in moderately hot water, they take exactly the form and appearance of the common white bean, become quite tender, and have a pure and delicious nutty and oily flavor. *The whole plant, with the seed, is excellent for fattening hogs and cattle.*

There is one other species, *Cajanus flavus*, common in South America and the West Indies, where it is sometimes used for a fence to sugar plantations. In Jamaica, this species is much used for feeding

pigeons, and is there called the pigeon-pea. In Martinique the seed is much esteemed for the table.

Being a tropical plant, it would hardly stand our winters. Yet, from the observations of Mr. Ernst, it is not improbable that our climate might admit of an annual harvest of the seed, which seems to be so abundantly produced as to make an experiment highly interesting.

Most truly yours, J. E. TESCHEMACHER,

Boston, 19th Jan., 1853.

P. S. These particulars I furnished to Hon. N. P. Wilder a week ago, imagining they would be laid before the society.

To Dr. EBEN WHITE, Cor. Sec. Mass. Hort. Soc.

JAPANESE GARDENS.—The gardeners of Japan display the most astonishing art. The plum tree, which is a great favorite, is so trained and cultivated that the blossoms are as big as those of dahlias. Their great triumph, however, is to bring both plants and trees into the compass of the little garden attached to the houses in the cities. With this view; they have gradually succeeded in dwarfing the fig, plum and cherry trees, and the vine, to a size so diminutive as scarcely to be credited by an European; and yet these dwarf trees are covered with blossoms and leaves. Some of the gardens resemble pictures in which nature is beautifully modelled in miniature—but it is living nature! Maylon, whose work on Japan was published at Amsterdam, in 1830, states that in 1828 the Dutch agent of commerce at Nagasaki, was offered "a snuff box, one inch in thickness, and three inches high, in which grew a fig tree, a bamboo, and a plum tree in full bloom."—[Exchange.

HOW TO JUDGE CATTLE.—In all domestic animals, the skin or hide forms one of the best means by which to estimate their fattening properties. In the handle of oxen, if the hide be found soft and silky, it affords a proof of tendency to take meat. A beast having a perfect touch will have a thick, loose skin, floating, as it were, on a layer of soft fat, yielding to the slightest pressure, and springing back towards the finger like a piece of soft leather. Such a skin will be usually covered with an abundance of soft, glossy hair, feeling like a bed of moss, and hence it is ever termed a mossy skin. But a thick-set, hard, short hair always handles hard, and indicates a hard feeder.—N. Y. Farmer.

There is a deal of valuable information embraced in the above short article. The *handling of animals*—we always considered a most important point, in selecting a good feeder, and it is entirely too much neglected. Nothing but practice will make one understand the difference in this particular. We have heard capital judges say, they would prefer to buy with their eyes shut, if they were allowed to handle an animal, rather than to judge by appearance only, without handling.

BREAKING STEERS.—Never use force. When you wish to put the yoke on for the first time, coax them with an ear of corn or a little salt. After they are yoked don't use the whip, but induce them to follow you for the corn or other feed you offer them. In that way you will save yourself much trouble, and your faithful servants much fear.—*Agricultor*.

Extract

FROM PLAYFAIR'S LECTURE ON THE FEEDING OF CATTLE.

Most farmers are aware of the fact that young calves, sheep and pigs, fatten more quickly in the dark than in the light. The explanation of the fact is simply this, that they pass more of their time in sleep. Sleep is that portion of life of an animal when the principal growth of its body takes place. In sleep all the voluntary motions cease; vitality, therefore, now increases the mass of the body, as its force is not expended in producing motion. It is for this reason that we like those lethargic pigs which stagger to the trough in a lazy way and sleep as they have finished eating. Very little matter being expended in motion, they rapidly increase in size. The phlegmatic Chinese or Neapolitan pig fattens quickly, whilst the unimproved, long-legged Irish pig, which gallops about at such an extraordinary rate, expends all its food in the production of force, and does not grow rapidly.

Perhaps the greatest refinement in fattening is exhibited in the manner of feeding ortolans. The ortolan is a small bird esteemed a great delicacy by Italians. It is the fat of the bird which is so delicious; but it has a peculiar habit of feeding, which is opposed to its rapid fattening—this is, that it feeds only at the rising of the sun. Yet this peculiarity has not proved an insurmountable obstacle to the Italian gourmands. The ortolans are placed in a warm chamber, perfectly dark, with only one aperture in the wall. Their food is scattered over the floor of the chamber. At a certain hour in the morning the keeper of the birds places a lantern in the orifice of the wall; the dim light thrown by the lantern on the floor of the apartment induces the ortolans to believe that the sun is about to rise, and they greedily consume the food upon the floor. More food is scattered over it, and the lantern is withdrawn. The ortolans rather surprised at the shortness of the day, think it their duty to fall asleep, as night has spread its sable mantle around them. During sleep, little of the food being expended in the production of force, most of it goes to the formation of muscle and fat. After they have been allowed to repose for one or two hours in order to complete the digestion of food taken, their keeper again exhibits the lantern through the aperture. The rising sun a second time illuminates the apartment, and the birds, awaking from their slumber, apply themselves voraciously to the food on the floor; after having discussed which they are again enveloped in darkness. Thus the sun is made to shed its rays into the chamber four or five times every day, and as many nights follow its transitory beams. The ortolans, thus treated, become like balls in a few days. The process speaks much for the ingenuity of its inventor, if it does not for the intellect of the ortolan. In this refined mode of feeding, every condition for the fattening of an animal is united—i. e., warmth, plenty of food, and want of exercise.—[New England Cultivator.

Ice House Management.

This is a matter of no small importance, yet how often do we see it treated, not only with indifference but upon the very worst principle possible to ensure its preservation; not one ice house in fifty is constructed upon the correct principles—not one in the same number is managed correctly. When we consider that damp and heat are the two great agents of thawing, it should be our endeavor to counteract these by every means in our power. To effect this, ventilation must be had resource to, and non-conducting mate-

rials employed in the erection. Of materials, we may observe that stone is of all others the worst; timber and brick are the best. The usual practice of sinking ice houses to a great depth under the surface is bad; indeed, it has only one redeeming property, which is the convenience of filling from the top. Its disadvantages are, the difficulty of admitting sufficient ventilation to correct the dampness, which, build them as we may, is sure to exist in under-ground houses, the conduction of heat from the surrounding soil, and the difficulty of effecting sufficient drainage; these very far over-balance the advantages thus offered. Why are the majority of ice houses and most cellars during winter so much warmer than the surrounding atmosphere? Is it not from the heat conducted through their walls from the surrounding soil? Earth is a much better conductor of heat than air, or, in other words, it communicates its heat to other bodies coming in contact with it much quicker than that element. Hence the necessity of placing between the earth and the ice some slower conductor of heat, and the slowest conductors we have applicable to the case are timber, charcoal or air; both also resist damp, while stone does not, and, besides, it is a rapid conductor of heat. Water is also a rapid conductor of heat, and instances have been known, where rain water has percolated the roof of an ice house, that the temperature has been raised to sixty degrees. Hence the necessity of keeping such houses perfectly dry, not only at the top, but also throughout, by efficient drainage of the melted ice and by ventilation to correct the dampness in the atmosphere and walls. Indeed, the walls of an ice house, to be in proper condition, should be as dry as those of a dwelling.

The cheapest and best way of constructing an ice house, is to make its walls double with a space between them, which should be filled with that excellent non-conductor, "charcoal dust." Where timber is the cheapest the house should be boarded inside and out, with the charcoal dust between the walls; where bricks are cheapest they should be used. Stone may be safely used with such a good non-conductor between a double wall. Dry saw-dust is also a good non-conductor, and it can easily be obtained everywhere in our country, but it should not be used unless it is perfectly dry.—[Scientific American.

WOOL IN THE UNITED STATES.—The Economist says—"By recent scientific researches on the part of Peter A. Browne, Esq., of Pennsylvania, it has been established that the United States can outrival the world in wool as in cotton. Thus, Spanish sheep, yielding naturally wool 2000 to the inch, carried to England, degenerated to 1900 to the inch, and brought to the United States, recovered to 2,100, or finer than the original. The fact being once established, that our climate and soil produce finer wool than other countries, will give to our manufacturers inevitably the superiority in cloths, if the manufacturer is allied in his interest to the grower.

PACKING APPLES.—The following method is practiced in some parts of Maine for packing apples for shipment to California: Each apple is wrapped in paper, and then packed in the barrel in layers. Between every two layers of apples, is a layer of powdered charcoal. The apples are thus prevented from coming in contact with each other, and through the anti-putrescent qualities of the charcoal, the rot, even should it attack a part of the fruit, will be prevented from communicating to the remainder.

The True System of Farming.

Trying to do too much, is a common error into which the farmer often falls. His great eagerness in striving to be rich, is doubtless the cause of his error. He is ambitious and energetic, and forms his plans on a large scale, too often, perhaps, without counting the cost. He buys a large farm, and wants to be called a "large farmer," without understanding or considering the true elements that constitute a real farmer. He fancies the greatness of that profession, as is too often the common estimate, to be in proportion to the number of acres, not to say cultivated, but embraced within the boundaries of his domain. The fact is now being spread abroad, that a large farm does not make a man either rich, contented or happy, but on the contrary, the reverse of all these, unless well tilled, when his labor is rewarded by ample crops and fair success in the various departments in which he is engaged. No farmer can realize the full benefits of his profession without adopting a thorough system of culture. His success, commensurate to his wishes, always depends upon the manner in which he prepares his grounds, plants his seed, and rears his stock. Neither of these departments, which may be considered the cardinal ones of his profession, will take care of themselves. The soil may be rich, but it needs culture. His seed may be sown, but it should be in due time, and always on soil well prepared and of a suitable quality for the production of the crop desired. His stock must be constantly cared for—for it derives its thrift from the soil, and sends again to that soil the sustenance it requires; but this is not done in a loose, hap-hazard way. The farmer's care is required, and all his better judgment must be exercised in keeping up this system of reciprocal benefits that may be realized by every intelligent and industrious farmer.

Thorough cultivation and systematic attention to all parts of his business is indispensable to a good degree of success. The very corner stone to this whole system of farming, is to do what you do thoroughly; nature will not be cheated, and never gives full returns to the half-way work that is practiced by vastly too many calling themselves farmers. If the land has been worn, the extent of that exhaustion and the food required, must be first considered. When ascertained, the full measure of these requirements must be given, to bring out full returns. If the farmer has but a small stock, and consequently but a small amount of manure to replenish his land, it is obvious that but a small farm can be supplied with it; and good judgment at once dictates that to cultivate properly a large farm, artificial fertilizers must be used if good crops are obtained. And so with the labor, two men cannot suitably till one hundred acres of land, when the labor of two men and perhaps four, might be profitably employed on seventy-five acres.

This is the great error in farming. Two men strive to do what four can hardly do, and thus thousands of acres are run over, half tilled, and producing half crops. The land is run over till worn out, sustaining year after year the unnatural tax, till its energies are entirely exhausted, and it fails to yield even a feeble crop, because its life is worn out. Much of the soil in Virginia and other Southern States is a type of this. Thousands of acres are lying entirely useless and exhausted, and will ever remain so, till the first elements of its power are returned to it. This process is fast going on in many of the Western States. The soil is treated like an inexhaustible mine; the tillers crying give, give, give! till in a few years it will have nothing to give. The boast of the

West is, large farms and large fields of grain; plow, sow, and reap, is the business of western farmers, drawing out the very life of the soil, and sending away in the heavy exports that are constantly going onward, without returning to the soil the food it requires to make it productive.

The light that is being spread abroad on this subject, is beginning to correct this practice to some extent, but in most instances very little is returned to the soil to keep it alive, till after several years of continual cropping, it manifests signs of exhaustion, and ultimate barrenness. When tillers of the soil understand their true interests, they will cultivate no more land than they can do well. Fifty acres of land for tillage, brought to a high state of cultivation, pays better than one hundred run over in the way that many do.—[Jefferson Farmer.

New Subsoil Companion Plow.

The Oxford (Eng.) Journal, in speaking of the Stow-on-the-wold and Chipping Norton Agricultural Society, says: "As soon as the plowing was over, the company congregated to witness the trial of a subsoil companion plow, manufactured and patented by Mr. GILLET, of Brilles. This plow is so constructed that it combines all the features of an ordinary plow with the addition of a subsoil plow, which may be used at the same time, or detached or suspended if necessary. The combination of these advantages naturally excited considerable interest, as to whether the implement could fulfil what was expected and said of it, and its trial was looked to with great anxiety. The land selected for the trial was by no means adapted for it, because it was light and rocky; and, therefore, the plow could not sufficiently develop its powers, and this was admitted on all hands; but the inventor felt satisfied that even under such disadvantages it would give a tolerable idea of its value and importance. In that conviction he was fully borne out by the trial, for the work was well executed, and the subsoil plow taking the lower furrow and following in the horses' track, showed at once its perfect applicability, especially for stiff, heavy land, where the horses tread renders the ground so hard as to prevent the possibility of the water getting away. For all root crops this implement appears to be admirably adapted, and in plowing for Beans, or after Turnips, the manure can be most advantageously plowed in, so as to leave it near the surface, which every one is aware is a most desirable object. The general opinion of all who examined this plow, and witnessed even this trial, was, that it is one of the most valuable implements that has yet been brought before the notice of the public, for it not only possesses the advantages of plowing and subsoiling at the same time, and with one operation, but the cost of this combined power is but a trifle beyond the ordinary plow, and the subsoil can be attached to any plow, while the draught is but slightly increased by it. The cost of the plow complete does not exceed six guineas, and the subsoil alone, to be attached to any other plow, two guineas; so that the expense is not likely to interfere with the demand for an implement which must come into general use as soon as parties become acquainted with its merits. We understand that the patentee has already received numerous orders; and of all the improvements which have been devised for the preparation of the land to receive seed, there is not one which is so calculated to effect its purpose in a more successful manner, and there is no implement of the possession of which a farmer may be prouder. It is not anticipating too much to say, that within a twelve

For the Farm Journal.

MESSRS. EDITORS:

"Toby," a correspondent of the *Village Record* noticed in that paper, a few weeks since, a crop of corn raised by S. J. Dizkey & Bros., the past season. We have since received your request to make out for the "Farm Journal" a full statement and method of operation. We take pleasure in complying. We believe the science of farming, although it is now receiving more nearly than ever before, the attention its importance merits, and is now advancing with rapid strides, fostered as it is by such enlightened suggestions and discoveries as appear in such invaluable periodicals as the "Farm Journal;" yet there is still much to be learned and discovered.

If one of your correspondents can say any thing that will enable some or one of your readers to raise one bushel more of corn to the acre, he has done a public good. We have been successful in raising some large crops, and give our experience to your readers for what it is worth.

No. 1 is a small field containing two acres and sixty-four perches. It was in pretty good condition, and had been in grass for some five or six years. It had been limed twice before, and was limed last spring after the ground was plowed; it received, also, sixteen cart-loads of barn-yard manure to the acre, which was spread on the sod and plowed under; and we may say here, that in seeding corn, we consider the *plowing* a very important part of the matter. Any person who has observed the enormous mass of roots thrown out by a heavy crop of corn, cannot fail to believe it impossible that they should be all accommodated to advantage in four or five inches of soil. It is our custom to plow from nine to eleven inches deep for corn, and as that cannot be done in a stiff sod with one pair of mules—which is the motive power we use—we always use four, or else a pair of mules and a yoke of oxen together. To this many will object on account of the increased expense; but we are satisfied that it pays us well in the end. It was a source of considerable difficulty with us for a long time, our not being able to procure a plow that would turn over a furrow slice ten or twelve inches in thickness, to our satisfaction. None of our common plows will do it. We procured some short time ago, however, the "Michigan double plow," which promises to answer our purpose more nearly, although we have not had it long enough to get a fair trial of its merits. This we will do the coming spring, and if it answers as well as we expect, we will give our experience respecting it, hereafter.

But to come back to the corn. After the ground was plowed, a very heavy roller was put on it, and the field rolled. It was then harrowed twice across the furrows, with a sharp spike harrow. We then

put on a large cultivator, over five feet wide, with nine teeth in it; this goes over the ground three times, or oftener, if the soil seems to require it, and then we finish with a light roller. It is better, and less expensive to work the ground before the corn is planted and up, than after; therefore, we do not spare the harrow, but keep at it until the ground is completely pulverized. After corn is planted, it is some three weeks before it is up high enough to work, when, if the soil has not been well prepared beforehand, the grass and weeds get such a start that it is next to impossible to keep them in subjection in after culture, and we are decidedly averse to ever attempting to raise a crop of grass, and weeds and corn in the same field the same season.

After rolling the ground the second time, we proceed to plant. In doing this, we invariably use the drill, having found by experience that we can raise about one-fourth more corn to the acre, by drilling, than by planting it in the hill. We make our rows three feet nine inches apart, and leave from twelve to fourteen inches between the stalks in the row, or, if the soil is thin, we increase that distance a few inches.

After the corn is up high enough to work, we put in the large cultivator spoken of before, setting back the two front teeth, and taking out the middle one, so that it can be run over the rows, one half on each side, and is drawn by a pair of mules; and we go twice along the same row. As there is a person to go after to set up the corn, one setting up does for the double cultivation.

After standing some two weeks or more, a small one-horse cultivator is put on it, (and, by the way, we think we have the best article of that kind out,) and give it two rounds, or four strokes between every two rows of corn. We then go after with the hoe, and cut out any grass that may have escaped the harrow, and also thin out the corn to what we think about right. We never disturb it afterwards, except to sucker it, until it is ready to cut up.

No. 1 had 289½ bushels of corn, making 120 bus. and 1 peck per acre.

The crop on No. 2 was more extraordinary still, considering attending circumstances. About twelve years ago, it was an old field, and had not been plowed for forty years, or may be twice that time, and was considered entirely worn out. About 1839 we limed it on the top, fifty bushels to the acre. The following spring we plowed it and put it in corn, which yielded about twenty bushels to the acre. The next spring we sowed it in oats, and we received about ten or twelve bushels to the acre. We next sowed it in clover which was suffered to grow up and lay down until the next fall, when it was carefully plowed under, and the ground manured with compost from the stable, (where we make from 150 to 200 loads of excellent manure every year, and we pur-

MARCH,

1853.]

pose writing out our plan of manufacturing it, and our experience regarding its benefits, for the "Farm Journal" some wet day, when we have a little leisure,) with about 18 loads to the acre. It was then sown in wheat, and the next season we had about twenty bushels to the acre from it. The stubble was then plowed down and the ground manured as the preceding year, and limed again and seeded in wheat; and we had from it rather more wheat than the year before. It was seeded in clover along with the wheat, in the spring, and remained in grass from that time until last spring, when it was plowed for corn. The clover had pretty much worked out, and a thick-set sward of green-grass had taken its place. We gave it last spring 16 loads coarse barn-yard manure per acre, on the sod, and plowed it under, and then limed the inverted soil. The cultivation it received was just the same as No. 1. This field contained eight and one-fourth acres, and had 89½ rows of corn on it, making 108½ bushels to the acre.

No. 3 had never given us a heavy crop of any kind. It lay about a mile from the barn-yard, and never had but one coat of barn-yard manure. It had been limed at different times, and had been in grass about six years previous to being plowed. It was limed on the sod in the fall of '51. Thinking deep plowing might have some effect on it, we plowed it some two inches deeper than ever before. After the corn came up it received about 400 lbs. Chappell's fertilizer per acre, and was cultivated the same as the others. The field contained ten acres and sixty-nine perches, and produced 993 bushels in the whole; making 95½ bu. to the acre.

No. 4 was on a farm two miles or more distant from the home place, and was not under our immediate oversight. It was plowed with a Wiley plow, with one pair of mules attached, and of course was not plowed deep. It was limed on the sod just before plowing, and after the corn was up, we applied about 300 lbs. per acre to it of Chappell's fertilizer. The seed was not good, being picked promiscuously out of the crib just before planting, and at least one-eighth of it never came up. It was re-planted, but the re-plants never came to much. Included in the field was a new clearing, of some three acres, and which was outrageously stony, and withal so grassy, that the hoes though well applied, could not prevent the growth of much of it. It was worked by a one-horse cultivator entirely, and by hoes.

The field contained 23 acres, and produced 1812 bushels of corn, which is 78½ bushels to the acre.

All the fields were accurately surveyed by a practical surveyor. The corn was all carefully measured in a barrel by two persons, and the number of barrels carefully noted down. The barrel was of the largest size flour casks, and was always heaped as much as would lay on it. This same barrel was filled by the same persons that filled all the others, and

in the same way, with the same amount of corn, which was then shelled, and the shelled corn measured, and the calculation made from that. Field No. 2 had some of the largest and finest ears on it that we ever saw. One weighed one pound and thirteen ounces, and there were many others as heavy, if not heavier.

We think it likely that the agricultural salts increased the crops in fields 3 and 4, some eight or ten bushels to the acre.

The yield of these fields are considerably ahead, we have reason to believe, of the average crops of our county; but we see no reason why they should be so. We use no magic, neither do we resort to powerful and transient stimulants. *Thorough* working of the land, we consider the chief agent of our success. Who is there that cannot do that? Five years ago we raised 116½ bushels of corn to the acre on a field of nearly nine acres. But we relaxed no effort, and now we have, on a small field, beaten that. Who will beat us? E. J. D.

Hopewell Cotton Works,
Ches. co. Pa., Jan. 20th, 1853.

For the Farm Journal.

Directions for Measuring Cattle so as to ascertain their Weight while Living.

SELECTED BY J. M. HARLAN, FROM A FOREIGN WORK.

This is of the first utility for all those who are not experienced judges by the eye, for by following these directions, they will come to the weight within a mere trifle:

Take a string, put it round the beast, standing square, just behind the shoulder-blade; measure on a foot rule the feet and inches the animal is in circumference; this is called the girth; then with the string, measure from that bone of the tail which plums the line with the hinder part of the buttock; direct the line along the back to the fore part of the shoulder-blade; take the dimensions on the foot-rule as before, which is the length, and work the figures in the following manner:

	ft.	in.
Girth of an ordinary bullock, - - -	6	4
Length along the back, - - - - -	5	3

Which, multiplied together, make 31 square superficial feet. That again multiplied by 23, the number of pounds allowed to each superficial foot, of all cattle measuring less than 7 and more than 5 feet in girth, makes 713 lbs.; and allowing 14 lbs. to the stone, is 50 stone, 13 lbs. Where the animal measures less than 9 and more than 7 feet in girth, 31 is the number of lbs. to each square superficial foot.

Again, suppose a pig or any small beast should measure 2 feet in girth, and 2 feet long.

Girth of a small pig, - - - - -	2	feet.
Length along the back, - - - - -	2	"

Which, multiplied together, makes 4 square feet.

That multiplied by 11, (the number of lbs. allowed for each square foot of cattle measuring less than 3 feet in girth,) makes 44 lbs.; which, divided by 14, to bring it to stones, is 3 stone 2 lbs.

Again, suppose any calf, &c., should measure 4 ft. 6 inches in girth, and 3 feet 9 inches in length—say,
Girth, - - - - - 4 ft. 6 in.
Length, - - - - - 3 " 9 "

Which, multiplied together, makes 16½ square ft. The square superficial feet and inches being multiplied by 16, the No. of lbs. allowed to all cattle measuring less than 5 and more than 3 feet in girth, make 264 lbs.; which, divided by 14, to bring it into stones, is 18 stone, 12 lbs."

The dimensions of the girth, and length of black cattle, sheep, calves, or hogs, may be as exactly taken this way as is at all necessary for any computation, or for the purpose of valuation of stock, and will answer exactly to the four quarters, sinking the offal; and which every man who can get a bit of chalk, may easily perform. These calculations are 14 lbs. to the stone, which is the general weight; but it is as easy to divide by any other number of pounds.

N. B.—A deduction must be made for a half-fatted beast of 1 stone in 20, from that of a fat one; and for a cow that has had calves, one stone must be allowed, and another for not being properly fat.

J. M. H.

Jan. 8th, 1853.

Vegetable Nutrition.

A writer in the January number of the Albany Cultivator, has given parentage to a new theory of vegetable nutrition.

The theory, however, as there laid down, is so incomplete in its details, as not to furnish to the reader sufficient ground either to adopt or repudiate it. It would greatly aid the cause, if all writers on scientific subjects would lend the weight of their names to their productions. I am well aware that in political discussions, and to mere literary productions it is not required that the author's name be made known. But when a writer enters the lists to combat the received theories as laid down by such men as Liebig, and Lawes, and many others that I could name, I think the reader entitled to the name of the author of the conflicting theory. I have said that the author has not sufficiently defined his position, and in this I apprehend I will be seconded by every reader of the article in question. Will the author please furnish the readers of the Cultivator with the details of his theory? When the public are fully informed as to what phenomena the writer contends for, the time for discussion will have arrived, and for myself, I will promise him a patient hearing, and an impartial judgment.

G. BLIGHT BROWNE.

Gwynned.

DRILLING WHEAT.

Report on the best method of putting in Wheat, read before the Union Township Agricultural Club, Dec. 25th, 1852.

Mr. PRESIDENT, GENTLEMEN, &c. :

In accordance with a resolution of our last meeting, by which the question, "Which is the best way to put in wheat—by the plow, drill or harrow?" was referred to me to report on, I respectfully submit the following remarks:

It is a question upon which there is probably as much difference of opinion as upon any one in the wide field of agricultural labor; and every one engaged in the cultivation of the soil, should feel himself deeply interested with a subject that so materially affects his labor, and determines the success of his prospects.

Undertaking the task with diffidence, I shall endeavor briefly to present a few remarks, as derived from observation, inquiry, and such collateral information as I could command during the limited period assigned me. Not, however, with the view of assuming the character of dictator, or insisting upon my opinions in preference to those of others, but rather to awaken a spirit of inquiry among those interested, into the different methods, stimulating them to decide their value by the test of utility, and conformity to the laws of nature.

In determining the manner of sowing or planting any seed, the question first arises—"Where is its natural place of vegetation?" Is it upon the surface of the earth, slightly covered, or deep underground? which differs greatly with different seeds. While we find some germinating readily upon the surface, others might lie there until entirely decayed, and show no signs of life; whilst, had they been covered with earth, they would soon have brought forth a new plant. Some vegetate by being put a few inches beneath the surface, while others will not germinate for a long time, or probably never, unless buried to the depth of twelve to eighteen inches; and, some again, will not vegetate at all by being put too deep under ground. Thus we see, that in all cases, due regard should be had to the laws of nature. Observation teaches us that wheat will vegetate as readily on the surface as in any other situation, when combined with a sufficient quantity of heat and moisture, which is essential to vegetation in all cases. Most of you who are engaged in farming, have no doubt experienced this to your regret and disadvantage: when, after having cut your wheat and put it up in the best manner possible, to receive the genial warmth of the sun for a few days, a warm, protracted shower of rain fell on it, and on going to your field you found that it had germinated almost instantaneously, even on the tops of the sheaves; so that, in many instances, you were obliged to open out the sheaves in order to dry the wheat and stop its

vegetation, while many heads being left on the ground, had sprouted to considerable length. This is conclusive evidence, that so far as vegetation is concerned, wheat does not require to be deeply buried, but will most readily germinate on the surface, or by being put in deep enough only to afford the necessary heat and moisture. And as our mode of treating it should be as nearly in accordance with the laws of nature as may possibly be, we are led to the conclusion that it should, in all cases, be covered enough only to protect it from the extremes of heat and cold, in which we must be guided, in a great measure, by the time, soil and climate.

As to implements, the harrow, or something similar to it, was probably one of the first made use of for putting in grain. We are informed that in some of the Oriental countries, the marshes and wet grounds along the rivers were prepared for the reception of the rice by no other tillage than the treading of their oxen, asses, &c. And having been thus rudely prepared before sowing the rice, the same was afterwards covered in a similar manner, by these untutored cultivators. Others again, instead of the strong and well-constructed harrows that are found upon our farms, had a few logs of wood or the branches of trees coarsely tied together, and dragged over the ground. In many countries still, wooden harrows are more common than those which grace our farms. And in every instance, it will be seen that the improvement of implements has kept regular pace with the advancement of agricultural science itself—leaving us still, as ever, in an age of improvement. A large proportion of the wheat now sown, is, no doubt, put in by the harrow, principally, perhaps, because it is a cheap instrument, and will answer the purpose. From what has been said respecting the vegetation of wheat, the impression might perhaps, be left on the minds of some, that it was the only proper instrument; but as it must be protected from the extremes of heat and cold, and for other causes, we find its use attended with decided disadvantages. After sowing a field broad-cast, and harrowing over it, there is frequently, if not always, a considerable quantity left uncovered, which is generally destroyed by the fowls of the air; if not, it will immediately vegetate, and, subjected to the scorching heat of the sun for a few days, it withers and dies. Actual experiment has also shown that some which was slightly covered and exposed to the immediate action of the rays of the sun, sprung up suddenly, but not having sufficient earth to retain the requisite amount of moisture, soon faded away, while that which was slightly shaded, perhaps by a few clods only, was enabled to retain its moisture, and consequently grew up vigorously. But again; unless the ground is entirely free from all rubbish, the harrow is very apt to drag the grain together, thus distributing it unequally, crowding it in some

places, so that it will not have sufficient room for a vigorous and healthy growth, leaving none at all in others. The former may frequently be seen by the presence of many heads of a diminutive size, the latter, as a natural consequence, by the entire absence of any. Thus, we may conclude that by harrowing in wheat, a great deal of the seed is entirely lost, not only by not being covered at all, but also by being buried too deeply, or not enough so. In the latter case, it is also more apt to be winter-killed.

The plow is used by many of our farmers in preference to the harrow, and is, no doubt, under many circumstances, superior to it; but it is, perhaps, chiefly used, only for the want of a better implement. Its use is generally attended with an increase of labor. So much so, that the difference of it alone, for a few seasons taken together, would purchase implements much better suited to the purpose. Like harrowing, ploughing in grain is also a wasting of seed. While it is, in general, more effective in covering the seed, there is still some left uncovered, and the rest quite unevenly, which will, of course, make its appearance at different periods, and be more or less retarded, crowded and unequally nourished during its growth, and some, perhaps, buried so deeply as never to come to light. The cultivator is, by some, preferred to the plow or harrow, as a medium between the two, and is, perhaps, superior to either, under certain circumstances. But the whole system of broadcast sowing is more or less defective, compared with the more regular one of drilling, which is made apparent by its yielding, in most cases, less per acre from the same quantity of seed, and many times, even from a larger quantity.

Drills were utterly unknown until some time in the sixteenth century, and to the celebrated *Jethro Tull* is accorded the honor of having been one of the first to construct and make experiments with machinery in the art of culture. The drill was certainly a great improvement upon all other implements, but like every thing else in the progress of improvements, it was viewed as an innovation upon the old established customs. But after repeated trials and experiments, it established successfully its claims and superiority, and but little wheat is now sown broadcast in the most highly cultivated countries, which is a sure presage of its merit. It is not only a saving of seed, which alone is a consideration of no little importance, but facilitates labor as compared with the plow, and besides, it seems to be admirably adapted to conformity with the laws of nature—avoiding, exposing a large portion of the seed on the surface, by covering it all, which is absolutely necessary for its protection, in our climate; as also its being buried too deeply, which is a material injury to its vegetation. A greater number of acres can be sown per day, more evenly covered, thus considerably lessening the cost of agricultural labor, and giving

ing it all an equal chance to come to maturity. Consequently, when the wheat is gathered, the product is found to be much greater than when sown broadcast, in many instances, from twenty to twenty-five per cent., and some times even more.

Taking all things into consideration, I should prefer the drill to either the harrow or the plow, as better suited to the wants of nature, therefore, more profitable to the farmer. A great deal more might be said, but as these remarks have already been protracted beyond their intended limits, I will close; not, however, with the presumption that you should adopt my views simply, but confidently hoping that you will be awake to a judicious inquiry by practical experiments, and thereby be enabled more fully to judge for yourselves.

In conclusion, I beg your attention to a few extracts, in confirmation of my preference for the drill. Mr. John Jones, of New Castle county, Delaware, says, "When I commenced drilling, and for two or three years, I was ridiculed by my neighbors; some would advise me to take the implement home, break it up, and cook my dinner with it. I, however, disregarded their jeers, and persevered. And now, the best evidence that I can possibly bring forward in support of the drill over the broadcast system, is the fact that all my neighbors have adopted the drill for sowing their wheat and most other small grain. I am much in favor of sowing with the drill, and of thin sowing. I harvested *twenty-four* bushels per acre from a field of *eighty* acres in 1847, from *eighty-eight and a-half* bushels sowing with the drill." He also says: "The experiments with the drill and broadcast on Dr. C. Noble's field, resulted in a yield of *twenty-seven* bushels per acre of broadcast, where *two* bushels had been sown; and *thirty-five* per acre, where *one and one-fourth* bushels had been sown from the drill; land similar in every respect; the variety of wheat, Mediterranean; showing an increase in favor of the drilled, of *eight* bushels per acre, besides the saving of seed. The yield of additional straw on the drilled acre, 12 per cent. Yield of additional wheat on the drilled acre, 27 per cent."

For a more full account, see *Patent Office Report* for 1848, page 467; also *Monthly Journal of Agriculture*, for 1846, vol. I, p. 586.

An account of very interesting experiments made by a member of the "Society of Friends," and laid before the Council of the "Royal Agricultural Society of England," proves that wide drilling will yield more per acre than narrow, with the same quantity of seed,—that the rows should be at least nine inches apart. See *Monthly Journal of Agriculture* for 1846, vol. I., p. 461.

SAMUEL BRUGGER.

For the Farm Journal.

Letter from H. Shubert, on Imported Cattle.

A premium has been awarded at the late exhibi-

tion of the S. A. S., for Holstein cattle. Twenty years ago, when traveling in Europe, I went through Holstein, so famed for Holstein butter.

The Duchy of Holstein is situated at the mouth of the Elbe, where it flows into the North sea. The Elbe is one of the largest rivers in Germany. In its course of 800 miles through the most fertile part of Germany, it brings down a rich alluvial soil, which is thrown back to the shore by the setting in of the tide. Every year some land is gained at the mouth of the river, in throwing up dikes to keep out the tide. This alluvial soil, becoming mixed with Phosphate, so abounding in the sea, forms the richest pasture of natural grass, not to be equalled. It is the saying of the cow-herds there, (perhaps a little exaggerated,) that, on loosing the staff in the evening, in driving the cows together, they cannot find it the next evening, the grass having grown over it. This rich soil is along the river. Eight or ten miles from it, into the interior, the soil is poor, and of course the cattle look poor. Is that not a sufficient proof of the folly to import the Holstein Cattle, unless the pasture is also imported.

The milch veins of cows develop themselves in proportion as the cows are well taken care of, and have a rich pasture. Phosphate is a main requisite to produce the quality and quantity of milk. The soil in Pennsylvania is deficient of it, but in our Western States the soil contains more, therefore the Western cattle are superior to the Pennsylvania cattle. Crossing certainly improves the breed, but that can be as well obtained in bringing the breed from our Western States, than to bring them from Europe with the appendage of a pompous pedigree.

H. SHUBERT.

Bethel, Berks co., Nov., 1852.

Hybrid Ducks.

For the Farm Journal.

MESSRS. EDITORS:—

Has the assertion in the Books* that the female hybrid progeny of the musk and common duck, "will pair with the common drake and produce a good sort," ever been verified by you or any of your fowl amateurs; or is it like much of the stuff in Poultry Books—nonsensical?

Some beautiful hybrids were raised here in 1851, some of which were exhibited at the State Fair, where their large size and beautiful appearance were much admired. They were as much in demand for breeding stock, as Mr. Newbold's Capons.

One of the finest of the ducks was kept all last season with a large common drake, but never produced an egg. Will she begin when a year older to "produce a good sort?"

NOVICE.

Jan. 8th, 1853.

*American Poultry Yard, by Brown.

For the Farm Journal.

A Model Barn.

[A Correspondent sends us the following account of a Model Barn, on the farm of George Wilson, Esq., near Bellville, Mifflin county, Pa.]

It is a hundred and seventeen feet long, by sixty-five wide; there is stabling under the whole, except a wagon shed at the one end, the whole width of which is twenty-two feet, and is as long as the barn is wide, made to drive through; an arched cellar of thirty feet in length, and eight or ten wide; takes up a part of the wagon shed. Above the stabling are the hay-mows; then seven or eight feet above is the main floor running the whole length of the barn—the entrance being at the end; under this is another floor forty by eighteen feet running across the barn—used for cleaning grain; under the main floor are the graneries,—corn cribs are over the wagon shed on either side of the upper floor—threshing machine is arranged with horse power in the main floor at one side, so as not to be at all in the way, and the horses work in the wagon shed beneath,—an upright post passing through the floor, and connected with the main wheel. Horses and driver are always in the dry—protected from a hot sun in warm weather, and from the chilling blasts of the cold, inclement season. The straw and other things for the manure yard passes out in front over a scaffold level with the upper floor, which it at least twenty feet high, making it very easy to put out a large amount of straw. The hay all descends seven or eight feet below the upper floor before it reaches the bottom of the mow, so that it is no trouble to unload it, but without a more minute description I must say that this is the most convenient barn that I have ever seen. It is not the "double decker" barn of which there are many in some parts, but this one was planned by the owner, projected by him alone, his carpenters working by his directions. The whole cost was about \$3,000—it is on a fine farm of near two hundred acres of tillable land.

R. F. W.

For the Farm Journal.

Management of Poultry.

Muncy, Pa., Dec. 20th, 1852.

MESSRS. EDITORS:—

As you solicited in a late number of your valuable Journal, an exposition of the views and experience of those engaged in agriculture and the rearing of stock, I am induced to give you my experience in raising Poultry. Having from my youth had a strong attachment for the feathered tribe, I procured, about a year since, a fine pair of Chittagong chickens, which I placed in company with six other hens, (the common dung-hill fowl,) and from the seven hens I raised upwards of 130 chickens the past season. I confined the laying hens, together with the chickens, after they became large enough to be mischievous in the garden, in a yard not exceeding twenty feet square, and although thus

confined, I succeeded in raising more chickens than many of the large farmers in the vicinity, who gave theirs the range of their large domain.

The practice observed was this:—On taking the hens from the nest, I tied them to a barrel, laid lengthwise on the ground, where they were allowed to remain until the chicks became large enough to be placed in the yard. But it was to the feed that I attributed my success. On taking the chicks from the nest, I fed them on *hard boiled eggs*, chopped up fine, for the first few days. When two or three days old I gave them an alternate feed of corn meal, slightly dampened, but entirely discarded all sloppy mixtures. After the elapse of a week or ten days, I commenced giving them *whole wheat*, which I have invariably found to agree with them better than any other grain. I still, however, continued to feed the egg until they got to be ten days or two weeks old, and what seemed to be most singular was, I had not a single case of gapes in the whole flock. That it was attributable to the food given them I am fully satisfied. It was certainly very palatable to them, and in my opinion, is the most *natural* food that can be given to the newly hatched chick. Whether new to your numerous readers or not, I am not able to say. The same practice was adopted by some of my acquaintances with like success.

I, however, from the small amount of liberty enjoyed by my flock, had a most formidable enemy to contend with. The vermin became very numerous, which I succeeded in subduing by the free use of grease, which I regard as the cheapest and most convenient remedy, and if persevered in will ultimately exterminate them. I have tried it, and although not new to your readers, I desire to add my testimony in favor of its general use.

P. J. P. W.

For the Farm Journal.

Fattening Poultry.

MR. EDITOR:—

From an old work on Agriculture, published in England some sixty years since, I extract the following remarks in relation to the fattening of poultry, which are at your service.

FATTENING CHICKENS.—Very short time is necessary. If a chicken is not fat in a week, it is distempered. Poultry should be fattened in coops kept very clean. They should be furnished with gravel, but with no water. Their only food barley meal, mixed with water, so thin as to serve them for drink. Their thirst makes them eat more than they would, in order to extract the water that is among their food. This should not be put in troughs, but laid upon a board, which should be washed clean every time fresh food is put upon it. It is foul and heated water which is the soul cause of the pip. The preventive is obvious.

FATTENING GESE.—As soon as the frost has set in,

(usually towards the end of November,) they are shut up, to the number of ten or twelve (not more) in a dark still place, where they can neither see light nor hear the cries of those kept for laying. They remain in that prison until they have attained the greatest degree of fatness, and are ready for killing; that moment should be seized, otherwise they would very soon turn bare and die. They are then crammed twice a day, by putting into their craws (by means of a tin tube) as much as it will hold of maize (Indian corn) boiled in water. The tube is used because the bill of the goose, being furnished with teeth, the person who should attempt to perform that operation by hand would soon have them scratched and torn to pieces. By this means, the goose acquires a prodigious fatness, so that a pair sometimes weigh from fifty to sixty pounds. Their liver weighs from one pound to a pound and a half—is white and delicate; but has a slight bitterness to the taste, which the liver of the duck has not. The hearts are large like a small apple; and when dressed on a gridiron are excellent eating. The feet are boiled, after which they are fried the same as the tongue.

Here is the process for fattening ducks. I do not know how it will suit the tastes and inclinations of your readers; but certainly the idea of eating ducks that have been suffocated, is not the most pleasant.

FATTENING DUCKS.—When the ducks are pretty fat by the usual mode of feeding, they are shut up in companies of eight in a dark place. Every morning and evening, a servant puts their wings across, and placing them between his knees, opens their bills with his left hand, and with his right fills their craws with boiled maize. They sometimes die from suffocation; but they are not a bit the worse for it, provided care is taken to bleed them directly. The unfortunate birds pass their fifteen days in a state of oppression and suffocation, which causes their livers to enlarge, and keeps them always panting, and almost without breathing. When the tail of the duck spreads out like a fan they know that it is fat enough. They are then turned out to bathe in clean water, after which they are killed. When the ducks thus crammed have been picked, they seem balls of fat, and none of their members are visible. S.

For the Farm Journal.
Theory of action of Lime used in Agriculture.

BY G. BLIGHT BROWNE.

[Continued from page 336.]

Lime may exist in the soil, combined with the acid that is the result of vegetable decomposition, and it may also be combined with siliceous, and in either case, it would not be capable of performing its proper office.

As late as in 1850, we are told by Prof. J. T. W. Johnston: "Lime acts in two ways upon the soil. It produces a mechanical alteration which is simple and easily understood, and is the cause of a series

"of chemical changes, which are really obscure, and are as yet susceptible of only partial explanation."

"In the finely divided state of quick-lime or slack-lime, or of soft and crumbling chalk, it stiffens very loose soils, and opens the stiffer clays; while, in the form of limestone, gravel, or of shell sand, it may be employed either for opening a clay soil or for giving body and firmness to boggy land. These effects and their explanation are so obvious to you, that it is unnecessary to dwell upon them."

To my mind, the chemical changes effected by lime, do not present any obscurity, and I contend that they are susceptible of entire explanation. But if we admit that it can effect all the mechanical changes attributed to it by the learned author, I confess that these effects and their explanation are not so obvious to me; but that they are really obscure.

In considering the mechanical effects of lime on our soil, we must keep constantly in view the small amount usually applied to the acre, and the immense amount of earth that this minute proportion of lime is expected to act upon. If we apply fifty bushels to the acre, which, at this time is considered a full dose, let us calculate in what proportion the lime will be as regards the soil.

We have seen that an acre contains 43,560 feet, superficial. If we divide this amount by 50, we have 871 feet for each bushel of lime. The small amount that can be allotted out of one bushel to each of these 871 superficial feet, would render it almost impossible that any purely mechanical effect could be produced. But we have other authority for attributing great mechanical effect to lime. Professor J. J. Mapes lays it down with a degree of certainty truly astonishing: the exact mechanical effect of lime on the different soils. Whether the learned Professor has imagined the existence of these phenomena, or whether he sees with microscopic eyes, I am unable to say, but I have sometimes had it suggest itself to my mind, that he was only following in the footsteps of some illustrious predecessor, who wrote it down because he thought it should be so.

We are told by the learned Professor at page 227 of his December number for 1852: "Some sandy soils are rendered more tenacious by the use of lime, particularly when accompanied by the addition of organic matter; others are injured by the application of lime. When the ultimate particles of sand are spherical, and they are often found to be so when previously acted upon by water, slight rains lubricate these polished surfaces and cause the sand to pack. The addition of lime to such land, applied in the caustic form, roughens these surfaces, forming silicate of lime, and prevents the mechanical condition before referred to. Some lands are materially benefitted by the application of plaster, both from the addition of its chemical constituents, and

"its peculiar mechanical action in the attachment of particles."

We are here told by the learned Professor that lime loosens a sandy soil that is composed of round sand, because it has a tendency to take the polish from the surface of the sand. In the first place, I deny that lime applied in the caustic state at the rate of fifty bushels to the acre, can or will do any thing of the kind. Caustic lime applied to a loose sandy soil, such as is here described, would not long remain caustic, but would soon be a carbonate; long before it could be so intermixed with such an overwhelming amount of sand as to cause any sensible effect. The quantity of lime would be too small to have any effect on the sand, even if it did not become a carbonate without delay. Caustic lime does not speedily combine with siliceous, at the ordinary temperature. And last but not least, I deny that the roughening of the surface of such sand would hinder it from packing, or render the soil composed of such sand more loose. But the effect of a dose of lime might easily be expected to do wonders in a mechanical way when we are told that plaster, of which so little is usually sown at a time as scarcely to be perceptible on the ground, materially benefits sandy soils by its peculiar mechanical action in the attachment of particles.

The more we consider these mechanical effects that are attributed to lime, the more absurd they will appear to us.

The only mechanical effect that can fairly be attributed to lime, is the result of a chemical phenomena that takes place in the process of decay. We have seen that in the course of decay of the vegetable matter found in the soil, vegetable acids are formed which have more affinity for lime than carbonic acid has. When the carbonate of lime yields its carbonic acid in favor of one or the other of these acids, the carbonic acid is set free in the gaseous state. This carbonic acid occupies a much larger space in its gaseous state than it did when combined with the lime, and by its expansion has a tendency to rend asunder the earth in which this phenomena takes place. In other words, it lightens it in the same way that it lightens a loaf of bread.

I believe that in this way only is the soil mellowed by the presence of lime, and that, in no instance, does it render it more compact. As to the other chemical and mechanical effects that are attributed to it, I believe that none such can be substantiated.

For the Farm Journal.
The Wheat Fly.

On new-years day, 1853, an intelligent farmer, in the vicinity of West-Chester, brought to me a quantity of chaff, which had been blown off in winnowing his wheat, in which were a great number of little, tawny, cocoon-looking bodies, or pupae evidently belonging to some insect which had materially injured

the size and quality of the grain. The same gentleman afterwards, at my request, brought to me some unthreshed spikes, or ears of wheat, in which were many of those pupae deposited on, or nestling round the grains, within the chaff of the florets. Not being an Entomologist, I could give no account of the injurious little animal; but, for the satisfaction of my inquiring neighbor, I forwarded specimens to Miss MARGARETTA H. MORRIS, of Germantown, a lady distinguished for her attainments in that most important department of Natural History, who promptly honored me with the following sketch of the character and career of the insect; and, at my request, has kindly consented to its publication. If what is known of the history of the mischievous little creature, shall induce intelligent observers to prosecute the inquiry, and thereby enable them successfully to counteract the evil, the subject may be well worthy the attention of the agricultural community, and entitled to a discussion in the FARM JOURNAL.

GERMANTOWN, January 7th, 1853.

"Many thanks, my dear Sir, for the pupae of the Wheat Fly, *Cecidomyia Tritici*, [not the "Hessian Fly"—which is a different species, called *Cecidomyia destructor*,] that famous, or rather infamous insect, so well known in New York, and now gradually spreading through Pennsylvania. Your farmer friends may well dread its approach; for no insect need be more feared. It feeds in the blossom of the wheat, where the eggs are deposited. According to HARRIS, the eggs hatch in about eight or ten days; the little yellow maggots may be found within the chaffy scales of the grain, and do not exceed one eighth of an inch in length. From two to twenty are to be found in a single husk of a grain; and sometimes on every grain in the ear. Grain is always more infested by them, when grown two years in succession on the same ground, as they pass their change in the ground, where they remain all winter, unless, as in this case, the crop has been late, and they were not sufficiently advanced to leave their early home. These maggots prey on the grain in the milky state; and their ravages stop when the grain becomes hard; they do not burrow into the kernels; but live on the pollen, and on the soft matter of the germ at the base of the grain. Toward the end of July, and the beginning of August, the full-grown maggots leave off eating, preparatory to moulting their skins. The torpid state lasts only a few days; after which the insect casts off its skin. Great numbers of the cast skins are to be seen, immediately after the moulting is completed. Sometimes the maggots descend and moult in the ground. The late broods are often harvested and carried into the barns. It is not usually till June, that they are transformed into pupae. The latter part of June, and in July, the perfect insects may be seen rising from the fields where the parent wheat had been grown. Their progress is about twenty or thirty miles a year.

In Dr. HARRIS's new edition of his treatise on Insects, he gives the various modes resorted to in New England and New York, to destroy them; a few of which I will mention, as the best: *Burn all the chaff where they are to be found; plough the old grain fields with a deep plough; first sprinkling the ground well with lime.* In those parts of New England where they have done the greatest injury, the cultivation of fall sown or winter grain has been given up: and this, for some years to come, will be the safest course. Late sowing has almost entirely banished the fly from those parts of Vermont where they first appeared; and there is good reason to believe that they will be starved out, when these means are generally adopted for a few years.

The above extracts have been taken from HARRIS;* but they are only a small portion of his long paper; yet all, perhaps, which are absolutely necessary for farmers to know. I can assure them, however, that they had better be up and doing; or they will sorely repent their supineness.

I will put these pupae in a glass jar with some earth, and hope to raise some of the Flies; when, if I succeed, I will send some in the perfect state to you, that the enemy may be known face to face."

Dr. HARRIS says, this insect seems to have been long known in England,—as appears by an extract of a letter, written in 1771, and published in the Philosophical Transactions for 1772. "The wheat fly is said to have been first seen in America, about the year 1828, † in the northern part of Vermont, and on the borders of Lower Canada. From these places its ravages have gradually extended, in various directions, from year to year. A considerable part of Upper Canada, of New York, New Hampshire, and of Massachusetts have been visited by it; and, in 1834, it appeared in Maine, which it has traversed, in an easterly course, at the rate of twenty or thirty miles a year. The country over which it has spread has continued to suffer more or less from its alarming depredations,—the loss by which has been found to vary from about one-tenth part to nearly the whole of the annual crop of wheat; nor has the insect entirely disappeared in any place, till it has been star-

*THE TREATISE ON INSECTS INJURIOUS TO VEGETATION, by THADDEUS WILLIAM HARRIS, M. D., is an invaluable work, which ought to be in every library, public and private; and should be diligently studied by every young American farmer.

†It may, perhaps, be doubted, whether this was the date of its first appearance; as I find, in DUNLAP'S PENNSYLVANIA PACKET, of February 25, 1777, a notice of "THAT DESTRUCTIVE INSECT CALLED THE WHEAT FLY," by THOMAS GILPIN, which seems to refer to an insect similar to this; though possibly it may have been some species of WEVIL. "These insects," says Mr. GILPIN, "begin to hatch, or rather to come out of the grain in the fly state, soon after the wheat is reaped, and these are the produce of eggs laid on, and in the heads standing in the field; when the grain is in the milky state, or before harvested; from this brood is produced a succession of broods or flies, each female fly laying from fifty to seventy eggs, which hatch and go into the grain, producing others in about six weeks alternately, until they have eat up, corrupted, or spoiled all the grain they can come at, until winter comes on,—at which time, or soon after hard frosts appear, they cease, and all the fly with out the grain dies; and those within, in the maggot state, remain inactive, or nearly so, till spring, when, some time in April, but mostly in May or June, they hatch, and the spring flies produced from the winter maggots are much stronger and larger than the fall flies; these, when the wheat is in the milky state, fly away to the fields, light on the standing grain in the dusk or evening twilight, where they lay their eggs in an 1 on the ears, which produce as before."

ed out by a change of agriculture, or by the substitution of late-sown spring wheat for the other varieties of grain.

West Chester, Penna., Feb. 7, 1853.

W. D.

Insects and Birds.

For the Farm Journal.

Without a doubt the great preponderance of noxious insects, is in some degree occasioned by the indiscriminate destruction of birds. There are large numbers of the feathered tribes that live almost exclusively upon insects, and these should, under all circumstances, receive the encouragement and protection of men. The *Hirundine*, or swallow tribe, particularly, are the most industrious and indefatigable little friends of mankind that, perhaps, belong to that class of the animal kingdom. Several species of them, too, are semi-domesticated, and prefer the habitations provided by men, as places of shelter in which to rear their young. The common chimney swallow, (*Acanthylis pelagica*), the barn swallow, (*Hirundo rufa*), and the purple or house martin, (*Progne purpurea*), are familiar, especially to farmers and villagers, if not to those who reside in larger towns and cities. But their general usefulness, connected with the destruction of insects, may, perhaps, not have been so duly considered by those, even, who have been wont to greet their coming every year, as the harbinger of a more genial season. When it is fully considered that these birds usually rear from two to three broods of young before they take their departure again in autumn; and that insects constitute the entire food of the whole family, the important office they perform in the economy of Nature, can only be estimated and properly appreciated. Some years ago I shot a chimney swallow as a specimen for scientific preparation, that could not have been more than an hour on the wing in the morning, when, on opening its crop, I found that it contained over two hundred of the smaller tribes of insects, principally two-winged flies (*Diptera*). There are also other families of birds that are partial to or live wholly upon insects. The fly catchers, (*Muscicapidae*) the warblers, (*Sylviidae*) amongst the latter the industrious little willow wren, (*Sylvia trochilus*) and also the Titmouses, (*Parus*) the common Blue Bird, (*Sialia Sialis*) the Oriole or Golden Robin, (*Icterus Baltimore*) and a host of others that visit forests, orchards, and gardens, in early spring when the trees are in bloom, for the purpose of feeding upon the various species of insects that are attracted thither by the odor and nectar of the flowers, or for the purpose of depositing their eggs in the opening calyx. When it is known that this is the time when the eggs are deposited that produce the insects so injurious to cherries, plums, pears, &c., it will also be seen of what service the birds are to the trees and the fruit. Often when the fruit is ripe there are certain species of birds that

visit the trees for the purpose of searching after insects; and even where they have perforated the fruit it has been more on account of the larvæ it contained, than for the fruit itself. Some years ago a neighbor of mine was wont to take a station near a fine tree of ox heart cherries, and remain there (gun in hand and powder flask well filled) all day, shooting indiscriminately every thing bearing the form of a bird that dared approach it; and at each shot I ween he destroyed more fruit than all the birds that visited it for that purpose would in a whole day; besides doing an incalculable injury to the tree in permitting the insect broods to mature, by keeping off their natural enemies. I have often even doubted the utility of setting up scare-crows, to prevent birds from visiting corn fields in the spring; for they just as often are after the various kinds of insect larvæ, especially cut-worms, (which their instincts teach them are somewhere in the vicinity of the corn hill) as they are after the corn itself; particularly after the corn has germinated. Witness, for instance, how industriously and regularly crows, black-birds, Robins, &c., will follow the furrow in spring plowing, and eagerly darting after every-thing of a creeping nature that is turned up by the farmer. Some of the Gallinaceous families, or common fowls, &c., especially turkeys, perform an important office as insect scavengers, and therefore large stocks of poultry might be made profitable to the farmer in more ways than one. It is well known to tobacco growers, that a flock of turkeys turned into a tobacco field, will, for the time being, perform as much labor, almost, and as well, as so many persons. In order to restore a healthy equilibrium between birds and insects, the destruction of the former should be prevented by public opinion or stringent laws. In this enlightened age, the merciless destruction of Tom-Tits, Catbirds, and Sparrows, is a species of "sport" of a very equivocal character; and the sooner it is brought to an end, the better for the cause of Agriculture, and of common humanity.

S. S. R.

Lan. Feb. 7th.

For the Farm Journal.

Landscape Gardening, No. II.

This embraces three distinct branches, united, yet differing materially in their scientific principles. The first, street gardening, I briefly alluded to in my last, and shall now speak of the second or suburban style.

In forming a garden, around, behind, or before a house in the suburbs of our cities, the first thing to be looked at is the architectural structure of the building. If it be in the Gothic style, the gardener must study, as far as the ground will admit, to conform to the same general effect, viz: to have an uneven surface, introducing groups and walks and terraced borders. This must be done with a strict

eye to chastity of design, the least variation from which will make the whole a burlesque.

If the structure is of the Corinthian order, then the more plain and simple the better, either by making figures mathematically, with box or other edging, the whole forming beds for flowers, to be planted according to their different species, or by laying the whole down in grass, and out of this cutting irregular figures or scrolls, so that the grass is kept clear of them. Nothing is worse than to stud the lawn with promiscuous planting.

It is of the greatest importance that the ground should be properly graded, and to do this it is not necessary to turn every thing up side down; all alterations are not improvements; which we see by every day's experience.

"Cut, cut, he cries, yon gloomy trees.

Lay low yon ivied pine."

This is easier done than remedied afterwards. The gardener should go to work cautiously. In grading and planting, for suburban gardens, it is his duty to look around, and take advantage of all that is beautiful, and cover up what is disagreeable. Plant evergreens of dense habit to keep the latter out of sight, such as the Norway Fir, and grade the ground so as to open up even to a landscape view of your neighbor's glade. All this can easily be done by a *real gardener*, who understands his business. "My place ought to look well, it cost me a deal of money." "Yes, it might have cost you one half less and looked a great deal better. The fault is your own, you knew nothing of the matter yourself, and you entrusted it to one who knew less." Here is the secret, the experienced and professional gardener wants two dollars a day; the other will work for a dollar. The one dollar a day man, takes six weeks to spoil and make bad, look worse. The other would have accomplished in two weeks, and made it look right. Which is the cheapest?

After grounds are properly adjusted and put in order, no great talent or large experience is required to keep them so. The little exertion required, combined as it is, with the purest and most rational enjoyment, amounts to but recreation; and often results in renovated health, increased appetite, and at night refreshing sleep, cheating the Doctor out of his fee. I often hear ladies (to whom the cultivation of flowers properly belongs) exclaim, I like to have my beds and borders in proper order, but house-work interferes and takes all my time; and besides, if fixed up ever so well in the morning, the children will have it all torn down in the evening. By your leave, fair ladies, this objection will not hold good. Whenever I see a disordered and dirty garden, I am prepared to see the same kind of a kitchen; and the children may be as easily trained to let the flowers alone, as the porcelain. You have taught them not to break a cup, or enter the parlor with dirty feet; and surely, the little

Messes especially, will take more delight in a full blown rose, and other beautiful productions of nature, than to wish to destroy. Instill into them a love of the beautiful in nature, and you will have no difficulty in keeping your borders in good order.

SCOTICUS.

For the Farm Journal.
Farm Fences.

MESSRS. EDITORS:—

Within the last year I have obtained possession of a farm containing a little over one hundred acres; lying in the form of a right angle parallelogram, and which, according to the advice of some of our most skillful and most experienced farmers, I design dividing into ten enclosures of equal dimensions; but which I find, according to my estimate of intended improvements, will require 1330 panels of post and rail fence, costing, here, \$1 12½ per panel, making \$1492 52.

This appears to be a very large sum to expend for the purpose of confining my own cattle in my fields and those of other persons off them; but as we are required by the laws of our State to erect good line fences for the benefit of others, or submit to the depredations committed upon us by their cattle, I suppose it is idle to complain of so unjust a tax.

If our own State can be taken as a criterion, I feel confident there has been more money expended within the last two years, in erecting and repairing fences, than one third of our farms would sell for, and that it will exceed the cost of all our towns and cities combined. It is this enormous burden which, like an incubus, has been keeping down the agricultural interests of our country; and the freedom from it which has enabled the North of Europe, with a climate not as genial as our own, and a more indifferent system of culture, to undersell us in the markets of England.

And since we are denied protection from foreign imposition, I think if we wish to compete with European labor, we must seek a release from the heavy taxes imposed upon us at home, both by ourselves and by the laws of our State; and expend those taxes in improving our farming.

My design in writing, Messrs. Editors, is to call the attention of farmers to the enormous cost of fencing our farms; for I am confident not one in a hundred could tell you what the enclosing and subdivision of their farms cost them; and also to inquire, through the "Farm Journal," of some one experienced in the soiling system, whether it would not be greatly to my advantage to remove all my division fences on my farm, of which there are enough to form the half of the out line fences, and to expend the money which it would require to divide it into ten fields, (amounting to \$855 00 in the erection of sheds, the making of manure, and otherwise improving my

farm? If so, what grain and grasses, and what number of acres of each it would require to support 25 head of cattle through the summer? What kind of roots, and what quantity, would be necessary for winter feed? Also, how many acres less will it require to support those cattle by soiling than by pasturing, and what labor it will require to attend to them; with any other information which would be of benefit to one unacquainted with the soiling system. It seems to me that the greater quantity and improved quality of the manure made, with the produce of the land which the fences would otherwise occupy, amounting to one and two-thirds acres, would pay for the labor; and that the interest of the money invested in fencing, with the repairs, and the produce of the land saved by soiling instead of pasturing, would be clear gain. I do hope some one acquainted with the soiling system will be kind enough to answer my queries.

RUSTICUS.

Oakland Farm, Jan. 7, 1753.

For the Farm Journal.
Dwarf Locust.

As an ornamental tree, nothing can be more beautiful than the Rose Acacia, or dwarf locust, grafted upon the yellow locust. In addition to the beautiful profusion of flowers which it bears, the foliage, and top of the tree (which is round, umbrella shaped) is beautiful. The flowers are much larger and more abundant than when grown on its own root; and when grafted in the spring in the ordinary way, grows very easy. I have never had one scion to fail; but they grow so rapid, and bear such a profusion of flowers the first year, that the flowers must be broken off, and the grafts shortened in, or they will break down before they have formed a connection with the main stem. But after the first year they become strong at the connexion, but they should still be shortened in a little, or they will sometimes break down when in bloom.

The curiosity a person has to see them in bloom, and the regret one feels in cutting off the grafts when growing so beautiful, frequently causes their destruction the first year; which is certain unless they are shortened in and the flowers broken off.

DAVID MUMMA, Jr.

Portsmouth, Dauphin co. Pa., Feb. 7, 1853.

For the Farm Journal.
Basket Willow.

The subject of raising willows for basket making and other purposes, mentioned in the Farm Journal for February, is worthy the attention of those having lands suitable for growing them; but our experience has, I think, not been sufficient to determine the kind best suited to the purpose in this country, and the confusion as regards names among those who have undertaken to describe the numerous species, render it very difficult to obtain the less common European species true to name. Of the *alba*, which is the Hunt-

ington Willow, described in Shelby's work on British forest trees; I obtained a tree imported four years ago from England; it is a fast growing, upright tree, and is described as among the largest growing of the genus; it is rather less spreading in habit than the *Russelliana*, and appears likely to be as suitable as that species for most purposes for which they are used; the shoot of both I suppose will be found too coarse for fine work.—The *Russelliana*, the Bedford willow of London and Selby, is the best known here of any imported species, except the weeping willow and yellow willow (*Babylonica* and *Vitellina*), being our large common green willow. Loudon, who mentions 170 species as introduced into Britain, names as best for basket making, the following species, viz: *Viminalis*, which he describes as growing from ten to twenty feet high; *Forbyana*, five to eight feet; *Decipiens*, thirty to forty feet; *Helix*, ten to twelve; *Vitellina*, thirty to forty; and *Purpurea*, three to four feet; and besides, mentions *Rubra*, triandra, *acuminata*, and some others as suitable. Of *Viminalis* I have twice purchased a specimen tree under that name, and have one growing, but am satisfied that I have not the species described by Evelyn, or Loudon, as *Viminalis*, I have the *Forbyana* from three different persons, and believe that I have the species correct; this makes long slender shoots; I have one before me seven feet long and one-third of an inch in diameter at the base, and it appears to be the most suitable for baskets.

The *decipiens* or Welsh Varnished willow, much cultivated as basket willow in England, does not here make shoots equal in length, and I judge will not be equal to the Bedford willow, with which it is classed. The *Vitellina* is our common yellow willow, and is generally known. The *Rubra* and *acuminata* appear promising, I but have not yet headed them down.

In order to obtain shoots for basket making and other purposes, of the large growing species, such as *alba*, *russelliana*, *fragilis*, *Vitellina*, *decipiens*, &c., it is necessary to permit the root to acquire strength before heading down, and then to take off the trunk and branches at the height of six or eight feet, after which it will only require the sprouting surface to be diminished, if the shoots are too abundant and not long enough, or if the shoots are too strong, then to increase the sprouting surface, by leaving a few inches of the base of the shoot uncut, to produce shoots the succeeding year. But for the *Forbyana* and other small species, it is best to cut them near the ground, and they may be planted near together. I have several tufts or branches of the *Forbyana* planted about three feet apart, which are annually cut down, and produce abundance of good shoots every year.

But apart from the value of the several species for economical purposes, several of them may be used with advantage as ornamental trees and shrubs, among these, the *Caprea* or goat willow, with broad, oval leaf, is highly ornamental, more especially the male plant,

during the flowering season. The *Pentandra* has smooth and glossy leaves, broader than is usual in the genus, with the odor of the Evergreen Bany tree; this is probably the most beautiful species.

The *daphnoides* and *pomeranica* have dark glossy bark, covered with a fine bloom. The *Rotundata* is remarkable for its nearly circular leaves. The *Rosmarinifolia*, a shrub five or six feet high, has leaves resembling the common rosemary. The *Croceana* an English species, growing to the height of ten feet, is among the most beautiful at the time of flowering. The difference of the species in form, size, and color; the general adaptation to, and great luxuriance in rich, cool, moist soils; should entitle them to a place in ornamental plantations, where the soil situation and other circumstances, are suitable.

ALAN W. CORSON.

Montgomery county.

For the Farm Journal.
Common vs. Shanghai Fowls.

MESSRS. EDITORS:

There being no abatement of the "fowl mania," but rather an increase of the "premonitory symptoms," in various sections of the country—it may not be amiss to give you the result of an experiment on a small scale, by one who has had a slight affection—it may interest some of the many readers of the Farm Journal.

I would, however, wish to be understood that I did not take the disease in the ordinary way, but rather had it forced upon me by a very particular friend, (who shall be nameless) and who had been even then, nearly a year since, completely impressed with the affection. Time and again would he urge me to go into the "ranks of the fancy," showing conclusively (at least to his own mind) that this "mania" was no mania at all, but a bona fide fact, a matter of dollars and cents. That the breeding of the celebrated fowls was a more lucrative investment than any thing on which the farmers could at present employ their time and means. Stating that these fowls require less feed and would lay more eggs than our ordinary dung hill breeds, and were intrinsically of far greater value, &c., &c.

Well, you see, Messrs. editors, as I am rather of a phlegmatic temperament, I was too slow, behind the age, &c. Not "turning my spoon right side up when such golden showers were falling," in time to secure a share of the benefits accruing. As my friend—who, by the by, is contrary to myself, of a very affectionate and ardent temperament—could not rest easy until he should succeed in some way to enlist me in the fowl cause, and as no other mode would seem to answer the purpose, he very liberally (though it may have been only a bait thrown out to infect me with the prevailing mania) offered me three eggs of "Shanghaes" as a present—of course so disinterested

a favor could not be refused—and, consequently, I was fairly embarked in an enterprise "fair or fowl," and the result of which I am now going to state.

The three eggs I placed under a common hen for incubation, and about the first of August last, had the satisfaction of seeing two chicks make their exit from the eggs, the third one being addled. Fortunately these chicks proved male and female. They were well cared for. They soon out-grew all the common stock of the same age. They put me in mind of nothing so much as the story of the boy, who took a night's lodging on a pile of guano: rising in the morning, he found to his great astonishment that his clothes had become far too small to contain his now overgrown carcase. Such appeared my Shanghaes, particularly the male. They have, however, by this time become more respectable in appearance, and I doubt if a more dignified specimen of the feathered "celestial" race could now be found. At six months old the hen weighs 6 lbs. and the male 7½ lbs. Had they been raised in the spring, no doubt their weight would be considerably more.

I have already taken up more space than I intend, and must now give, in a few words, the main object of this communication—the result of this small experiment.

These fowls were hatched on the first of August; are now six months old. On the 19th January the hen commenced laying, and by the 1st of February, or in 13 days produced eleven eggs, and still continues to drop an egg a day. To compare them with the common fowls, I may say that I have sixty or seventy ranging the yard and barn, from all of which I procured four dozen of eggs during the month of January—less than one egg for each hen in 31 days and the Shanghai hen 11 eggs in 13 days, or about two dozen in one month. It would thus take two Shanghae hens, or say three, to produce as many eggs in a month as sixty or seventy common hens. This statement is perfectly true so far as it goes, and will probably seem incredible to many.

It rather exceeds the Rev. A. S. Bumstead's statement as given in vol. 1 pg. 19 of Farm Journal, that "one Shanghae cock and two hens will produce more eggs in three month's time, of a greater size and richer quality, than five times that number of ordinary hens will do in one year." Some time after this statement appeared in the Journal, J. K. E. of Chester county, sec (pg. 174, vol. 1,) gave the editor a pretty hard "hit" in regard to publishing such extracts, and desired that the Rev. gentleman "designate the variety so extraordinary, as a benefit to us farmers to enable us to avoid them." I will merely add that my hen lays one egg a day, and my cock don't lay two, (too) and to enable the Dr. and others similarly minded, if they wish to avoid them, that my fowls are of the variety of yellow Shanghaes.

Respectfully, J. B. G.

MOUNTVILLE, Lancaster co., Feb. 5th, 1853.

Guenon on Milk Cows.

Having seen a short article in the December number of your valuable Journal, on Guenon's system of judging milk cows, and being a believer in the science, looking for information from every source, upon that subject, I thought the article alluded to would have called out a short response from some of your numerous readers, to throw some light upon it. As there are many believers within your vicinity who profess to understand the science, and practice upon it for their own use, I hope they will be willing to give us the benefit of their experience as to whether it is true or false, according to their judgment. By so doing they will much oblige

A LEARNER.

February 16, 1853.

Cultivation of the Cranberry.

Mr. Editor:—Permit me, through the pages of your Journal, to offer a few remarks upon the cultivation of the cranberry. The culture of this fruit has been much neglected in many of our States, and no crop, in my opinion, will pay the cultivator, on many soils, as well as the cranberry. One acre of well-prepared land will produce from one hundred and fifty to three hundred and fifty bushels of marketable fruit. The harvesting is done with an iron rake, made for the purpose, and one man, with a boy to gather up the scattering fruit, will gather from twenty-five to forty bushels per day.

The selection of soil suitable for their growth requires some observation and practice to ensure complete success. A clayey soil which contains moisture and is not liable to bake; a dark, deep loam with a mixture of sand; bogs or swamps which can be made moderately dry, are all well adapted to the growth of the cranberry. In fact, I have seen, even in bogs which during the greater part of the year are covered with water, the cranberry entirely in possession of the soil, rooting out all other vegetation. In our own county of Chester, there are now countless acres of idle and worthless land that with but little expense might be reclaimed and brought into condition for the culture of this fruit.

As far as I can speak from experience, there is but one variety that naturalizes itself and succeeds well on dry or upland soil; this is the "Bell" which is much larger than the "Barberry" or the "cherry," and grows much in the form of an egg; and in the wild state grows on the edges of the cranberry bogs, inclining to spread its way to upland or dry soil. Persons commencing the culture should begin with those that have become naturalized to dry soil; by this means they will much sooner and with less expense get up a stock, as they increase very fast.

The soil, before planting, should be well prepared

Pennsylvania Seedling Fruit.

MESSRS. EDITORS:

I send you a description and outline of three apples, not yet generally known to the pomological public. I think these will prove to be desirable varieties, when once disseminated.

by plowing and harrowing, and made quite even. Mark out the drills about twenty inches apart, and set the plants eight to twelve inches distant in the drills; they should have a slight hoeing at first, until the roots have taken a fast hold in the ground. After that they will need no other attention. In two or three years they will run together and cover the ground entirely over.

The fruit is much larger and of finer flavor grown by cultivation than in the wild state, and it readily keeps, from the harvesting of one year, until the next. The time for planting in spring, is from middle of March till first of May; and for fall, October and November.

G. December to January.

Fig. 1. WILLIAM PENN.—This tree came from seed was first noticed by S. W. Mifflin, of Columbia. Size above medium; color dull red, on a yellow ground, faintly streaked with light red; flavor pleasant, sub-acid, with a peculiar aroma; flesh firm, yellow, good; ripe

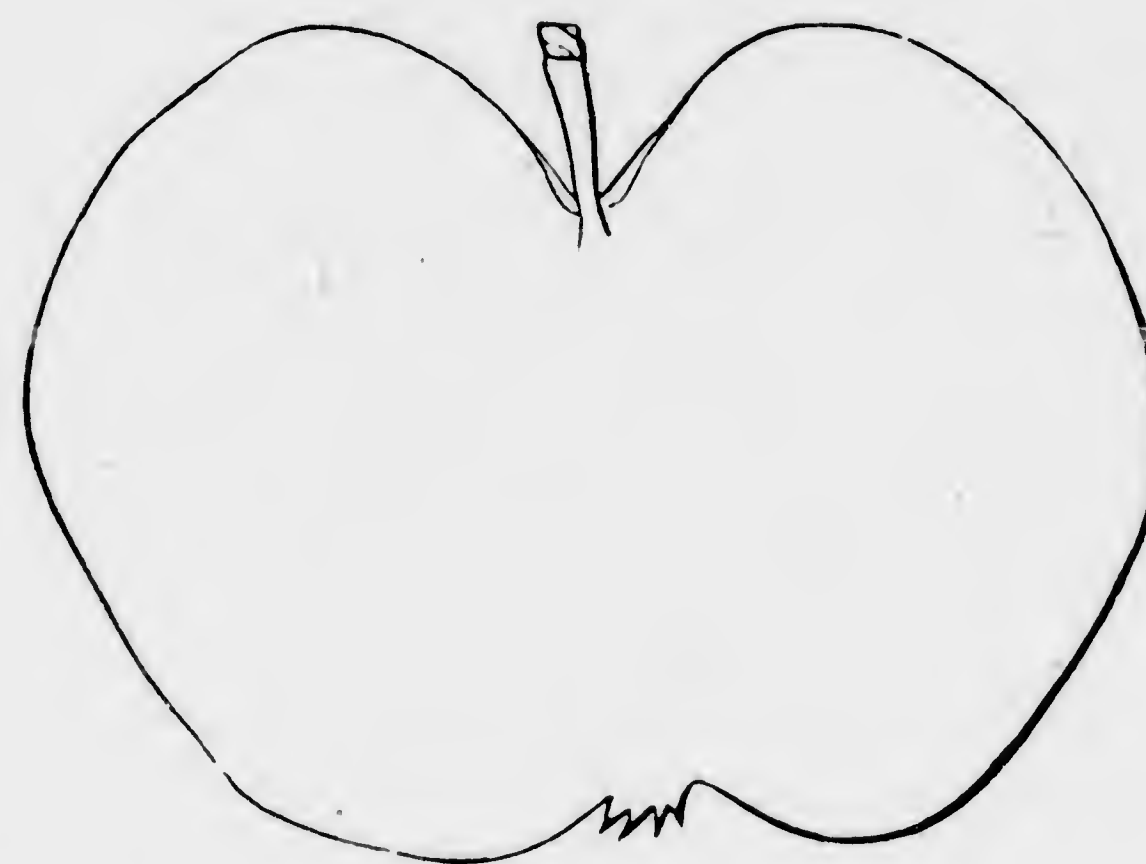


Fig. 1.

Fig. 2. MARY ANNE—This is also a seedling that originated in Columbia, within a few feet of the W. Penn. Color pale yellow, marked with small grey dots; size rather below medium; flavor crisp, pleasant, nearly sweet, juicy and good; ripe November to January.

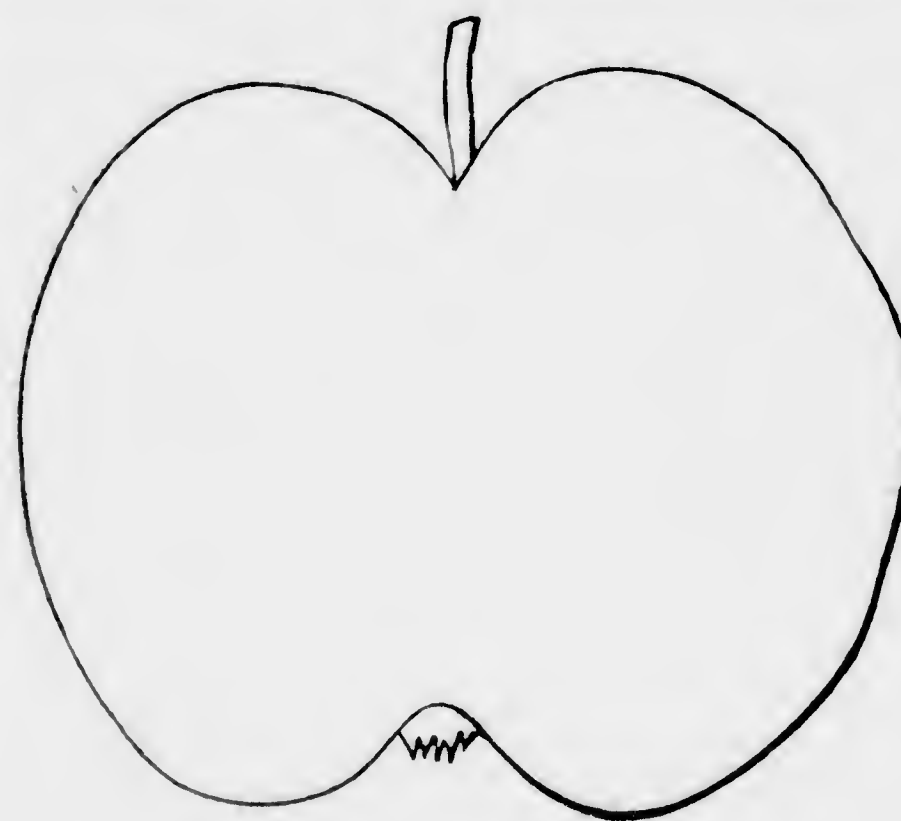


Fig. 2.

Fig. 3. WASHINGTON'S FAVORITE.—At the time that Gen. Washington resided in Philadelphia, he bought

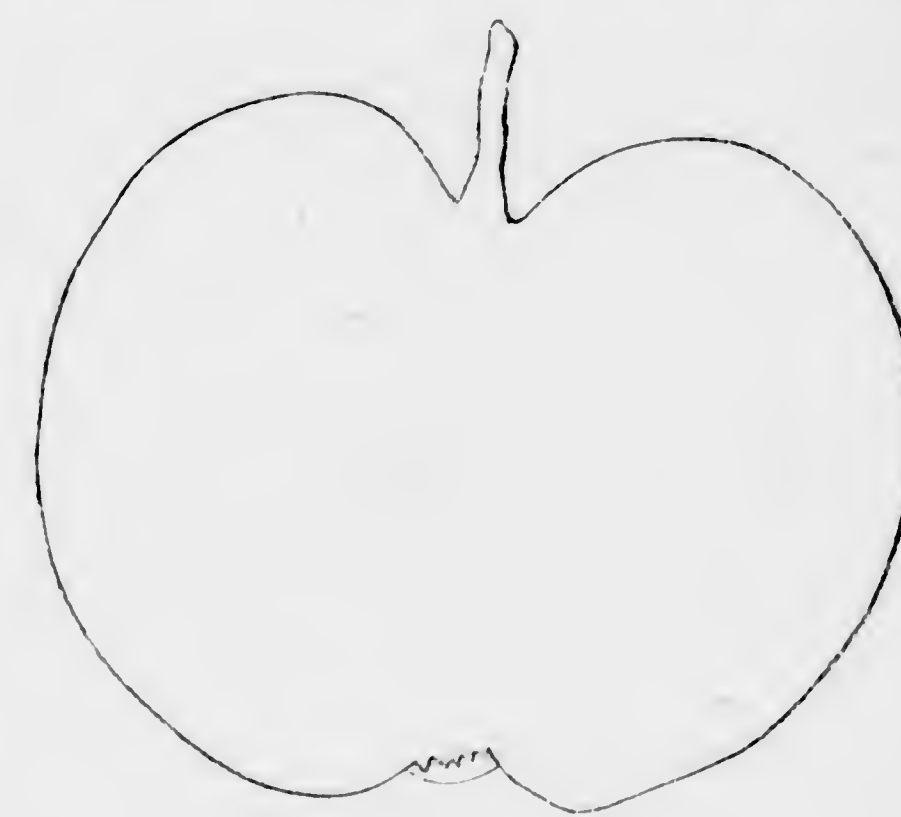


Fig. 3.

grafts were procured, and the name lost. From the fact of its being a favorite fruit of the General—it has here been known by the name designated—may

prove synonymous with some known variety. Size about medium; color yellow; form round, rather flat; flavor slightly sub-acid; flesh dissolving in the mouth, rich, juicy and very pleasant; ripe November to January.

Respectfully,

J. B. GARBER.

Columbia, Pa., Feb. 12th, 1853.

Guenon on Milch Cows.

The following communication is by one of our readers, not a farmer, who has probably paid more attention to this subject, and is better posted up than any one in this section of country. He is often called on by farmers to buy their cows.

For the Farm Journal.

As your columns are open for the discussion of any subject that will benefit the farmers, I have thought there was none at this time of any more importance than raising stock; and within this vicinity than of good milk cows. I have owned Guenon's theory for 3 or 4 years, and believe in it. But seeing a notice of another work coming out, simplifying Guenon's theory, or making it plain to every reader, I purchased a copy as soon as received at the Agricultural Warehouse, and find many valuable suggestions worthy of being remembered, and would recommend to every one having a Guenon, to have the Treatise by John Nefflin confirming it. I may have occasion to speak of this again, and, perhaps, give my opinion upon it. But I say now, to every body raising or keeping milk stock, to purchase it. They will never regret the price paid for it: 30 cents.

A BELIEVER IN THE SCIENCE.

West Chester, 2nd mo. 17, '53.

Plan for Building a Lime Kiln.

Enquiries having been addressed us as to the best method of constructing a lime kiln, we applied to our friend, Jonathan C. Baldwin, formerly President of the Chester county Horticultural Society, and whose experience of many years on this subject, entitles his suggestions to as much weight as his well-known skill in cultivating and testing choice fruit has extended his reputation as a pomologist. He writes as follows:

"My experience of the best plan of constructing a lime kiln for burning wholly with wood, is, in the first place: select a suitable spot, a bank if practicable, and excavate the foundation. Lay out the bottom 7 feet by 9, the 9 feet extending from the eye back. Then lay out the eye 10 inches wide, through the breast, which should be 7 feet thick, and concave in front, which greatly increases the strength.

After the foundation is thus laid out, proceed with the building, which should be double; that is, build your wall next the bank from 1 foot to 15 in. thick, leaving about 6 or 8 inches short of the dimensions

already given, which lining is to be built of slate or soap-stone, 6 or eight inches long, or other stone that will stand the fire. The advantage in this mode is, that when any part of the kiln burns out, or the whole, which it will do, it can be repaired without pulling down the kiln.

At the height of 12 feet from the bottom of the kiln, place a pole directly over the centre of the kiln and eye the longest way, (9 feet) which may be a sapling, the heavy end being placed on the bank, and let it extend over the kiln at least 15 feet. Measure off 7 1/2 feet from the centre, each way. Lay another pole across the kiln, crossing the former one at right angles in the centre. Measure 6 feet each way from the centre. You now have those poles 12 feet high from the bottom, which is the height of the bulge. Then drop lines from each end of the 15 feet mark, down to each end of the 9 feet; likewise from each end of the 12 feet drop lines to each end of the 7 feet. You now have the pot of the kiln laid out 7 feet by 9 at the bottom, and 12 by 15 at the bulge. The mason will find a great advantage in these lines, in giving the kiln a true and regular slope.

It is understood the shape of the kiln is to be oval. At this height lay out a bushel hole at the back part of the kiln, for filling and emptying. It should be 3 feet wide at the pot, splaying out to 5 feet. The kiln above the bulge, should be 3 1/2 or 4 feet high, not more, and, carried up straight. The pot and breast should both be carried up at the same time. The eye 10 inches wide, should be carried up that width, 2 feet high in front, and 2 feet 5 inches inside. Next the pot, forming an inclined plane, the top stones should be large, as the grades on which the wood is thrown, rest on them. We then drop back, 4 inches on each side, which increases the eye to 18 inches, for the bushel to pass in and out. It is carried up straight 20 inches, and then brought over to close. The eye should not be built double, like the pot, but of large slate or soap stones to stand the fire. In describing the breast, I have said it should be 7 feet thick, and a concave semi-circle of about 12 feet radius. The wing should extend pretty well out, as it strengthens the breast very much to top, which should batter 1 1/2 inches to the foot from bottom. There is no kiln so hard on the front, as those that are burned wholly with wood.

The kiln now being up, it is necessary to have a bench 6 or 8 inches thick, and 20 inches high inside the pot for filling.

A kiln as above, will hold 1,000 to 1,100 bushels lime."

How to Grow Rich.—A man who is very rich now, was very poor when he was a boy. When asked how he got his riches, he replied—"My father taught me never to play till my work was finished, and never to spend my money until I had earned it."

Our New Volume.

The present number closes the second volume of the Farm Journal. An index will accompany it, making a volume, when bound, which we think our subscribers will admit to contain much valuable matter, and practical experiments and suggestions, far more than remunerating them for the small price of subscription. It is intended to issue the twelve numbers of the new volume, within the present year, so as to make it commence with the year, hereafter, which we think will be more convenient and satisfactory. Our arrangements are such, that the volume now coming on the first of next month, will be superior to either of the preceding, not only in the amount of reading matter, which has already been increased three or four pages, but also, in the variety of topics of interest to the farmer, which will be treated of. Illustrations will accompany each number, consisting of original portraits of all kinds of stock, particularly of Pennsylvania; new and improved implements, and machinery, farm buildings, &c. The fruit department will receive especial attention, and we hope to have engravings of all our Pennsylvania seedling fruits worthy of cultivation. Ornamental trees and shrubbery, new and rare trees and plants, designing and laying out grounds, the cultivation of flowers, &c., shall all receive their share of attention. We have facilities for attending to these several branches, either ourselves, or by the promised aid of our correspondents, equal at least to any other agricultural Journal. Our subscription list has been very considerably increased since its removal to West Chester, and we hope for large additions to the new volume. Our friends through the State, who think Pennsylvania ought to have an agricultural paper, can greatly assist us by getting up clubs in their respective neighborhoods, and forwarding us the amount. Those who wish to discontinue, and we hope there will be but very few of this class, will please notify us before the issue of next number. Bills will be sent with the present number, which we shall be obliged by having the amounts remitted to us, as they are too small to admit of employing a collector.

George Walker's Premium Crop of Corn.

The manuscript report of the above sent us from Harrisburg, we find contains some errata, which should be corrected. Only two names were appended to it, that of Judge Wm. Jessup being omitted. As he was one of those who assisted in the measuring of the corn and surveying the ground, and as his name, so extensively known, affords in itself a sufficient guarantee of the correctness of the report, it is proper it should be added.

There was an omission also in respect to the distance. It should read "in rows 3 1/2 feet apart, running north and south, and 3 feet apart in rows running east and west." "Worked twenty six hills," should read "husked twenty six hills."

Wheat Bran as a Stimulant for Corn.

"Would you think it, I have found wheat bran a greater stimulant for corn than Chemical Salts, or Guano mixed with common salt, or mixed with Plaster of Paris, or even of rich hog-pen manure, or well-rotted summer cow-pen manure, and the corn nearly or quite as good as the best of the above, which was guano mixed with common salt, in the proportion of 200 lbs. to 1/4 bush. salt." L. W. ALLEN.

Caroline co. Va., Jan. 6, 1853.

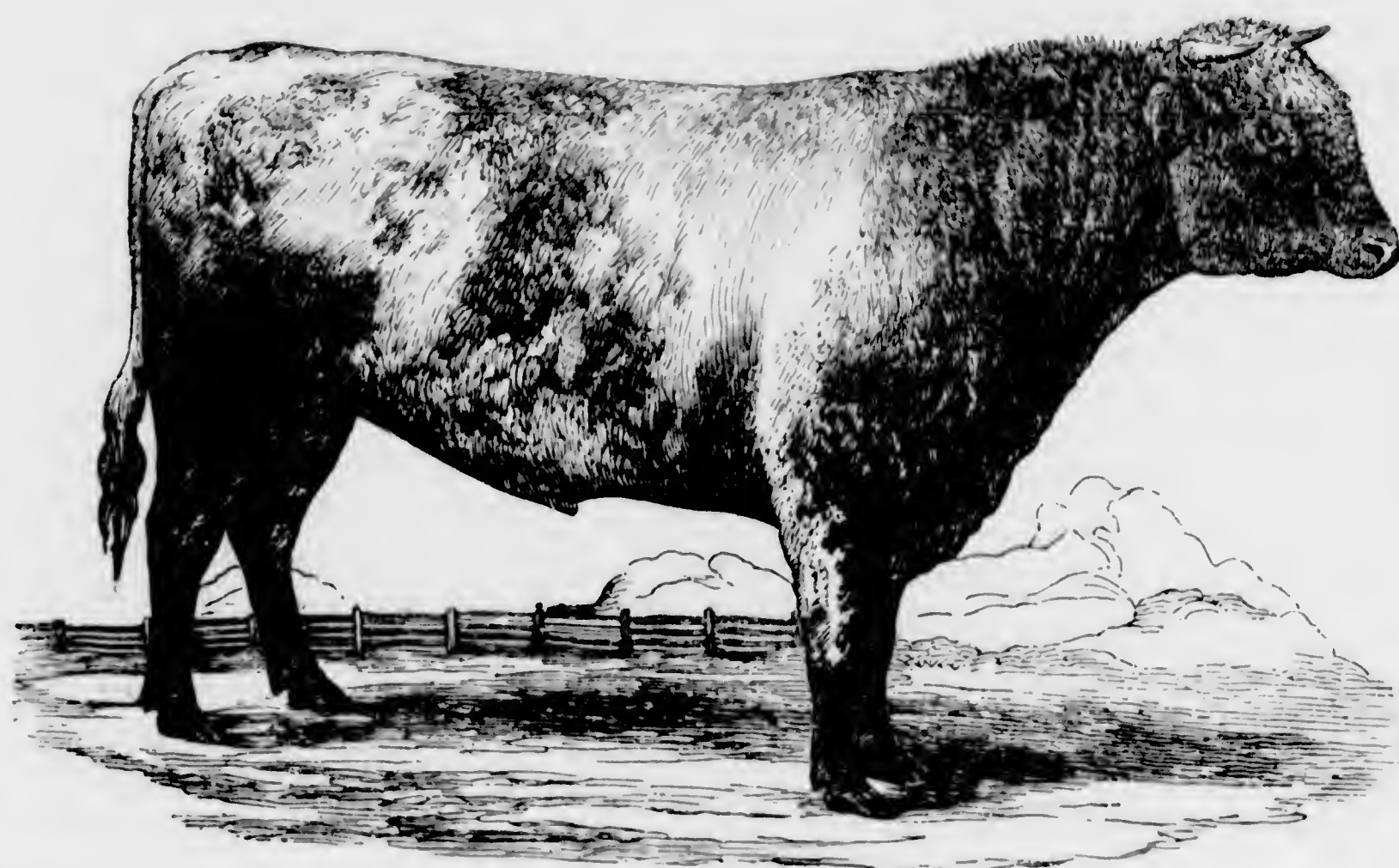
We copy the above from the American Farmer, Baltimore, which is, by the way, one of the best agricultural papers in the country, and abounds, both in its editorial, and original communications, with really practical and valuable matter.

The use of bran, as a "mineral food for the young Indian corn plant," was brought to the notice of the readers of the Farm Journal, page 56, of present volume, by our able correspondent and sound agricultural chemist, G. Blight Browne, of Montgomery county. His whole article should be referred to at this time. In it he says—"The bran, as soon as it has become wet, will enter into decay, (cremation,) and carbonic acid will be formed and set free. Heat will be evolved. The free carbonic acid will aid in dissolving the mineral matter, and it will be taken up by the roots of the plant. The root will soon extend over a larger surface, and will be adequate to continue the supply without this artificial aid. Five bushels of bran by double measure, will be sufficient per acre, and the farmer will, if his land is in good order otherwise, be generously repaid in the harvest time of his corn."

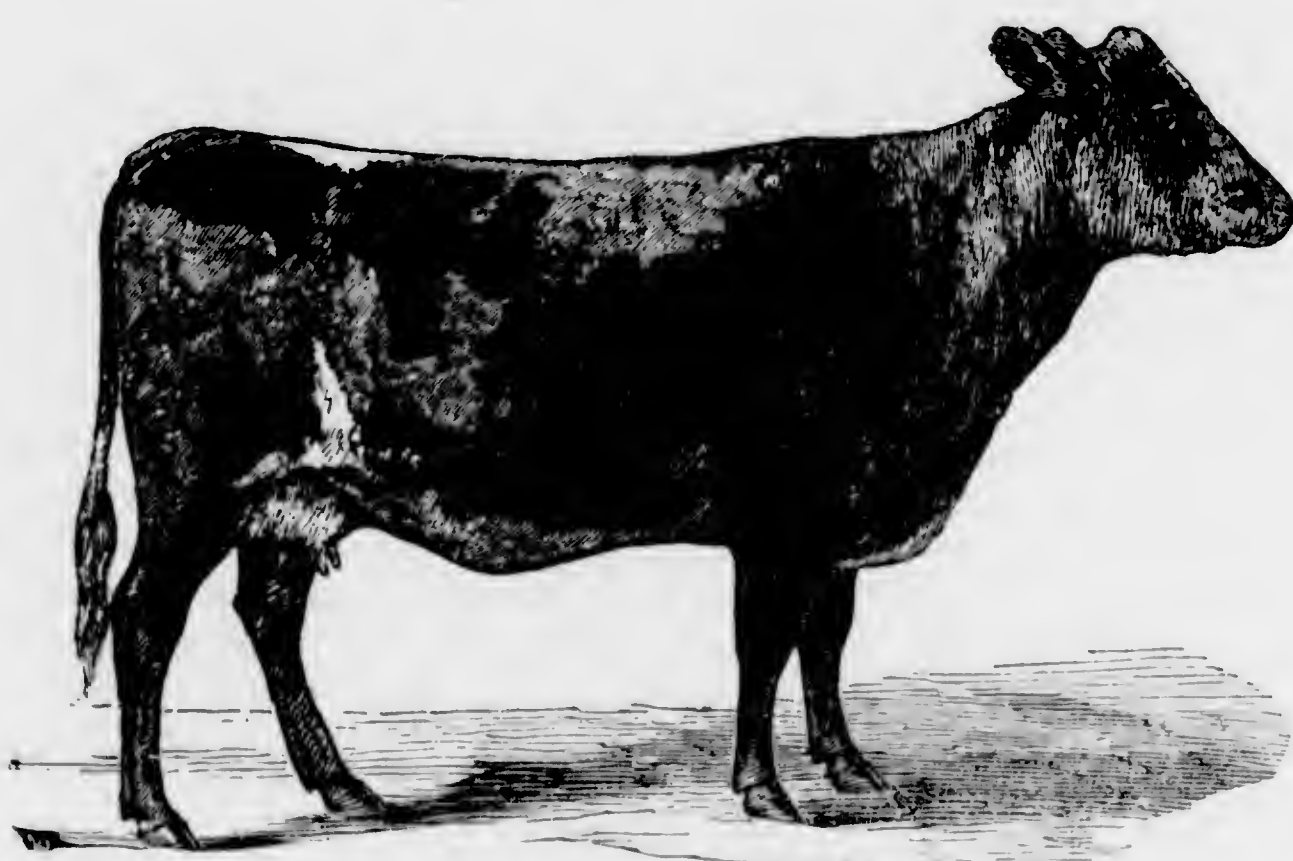
Rhododendrons and Kalmias.

Rhododendron maximum, and Kalmia latifolia, are two natives of Pennsylvania, unsurpassed in their natural beauty and profuse blossoms on the sides and tops of our mountains, by any thing we are acquainted with. They are always difficult to transplant, and flourish in open ground, or even in the shade, which is a cause of general regret. It appears by the following from David Thomas, of Aurora, and which we copy from Warder's Horticultural Review, that Lime even in small quantities is poisonous to them, and that they cannot thrive where there is any particle of it in the soil.

We have before us an original letter from David Thomas, a celebrated tree and fruit culturist in New York, to a lady friend in Michigan, who is an enthusiastic cultivator of plants and flowers. In this letter he recommends the soil taken from the brink of a ravine, where the lime has been leached out of it by the rains. He has tried the soil with entire success. Some peat earth may be mixed with it to advantage, provided it be brought from a locality where lime will not be likely to be mixed with it. The soil where they flourish in all their beauty in Pennsylvania, is formed by the disintegration of graywacke rocks, in which there is no lime. This peculiarity should always, we think, be regarded in the culture of these plants. They should always be planted in the shade, as they select shady woods for their habitat among their native hills in New York and Pennsylvania. If any of our citizens wish to cultivate those beautiful plants, it will cost them very little to try the experiment.



DURHAM BULL, HENRY CLAY, TWO YEARS OLD, BRED AND OWNED BY A. BOLMAR, WEST CHESTER, Pa.



DURHAM COW, CHERRY, SIX YEARS OLD, BRED AND OWNED BY A. BOLMAR, WEST CHESTER, Pa.

Improved Stock.

The portraits of bull and cow on opposite page, engraved from daguerreotype likenesses, are specimens of what may be attained by scientific and judicious crosses of choice native stock, with selected thorough bred Durham bulls. They are grade animals, the bull being 15-16, and the cow $\frac{1}{2}$ Durham, and are fully equal in some points to thorough breeds. They were bred and are now owned by A. Bolmar, of West Chester, proprietor of the celebrated boarding school Institution, which bears his name, and whose herd of cows and heifers, 41 in number, all of his own raising, and more or less mixed with Durham blood, have been pronounced by good judges superior as a whole to any dairy of the same number in this section of country.

The bull, "Henry Clay," was only two years old, the 24th of December last, and weighed, the day the daguerreotype was taken, 1697 lbs. He measures from between his horns, to the perpendicular line of the tail 10 feet 6 inches, and 10 feet round the girth behind the shoulder. His sire was got by imported Yorkshireman, bred by Thomas Bates, Kirkleavington, England, selected there and brought into this county a few years since by Joseph Cope, dam Virginia, out of imported "Strawberry girl," by imported bull, "His Grace." "Henry Clay" was got by P. Worth's bull, dam Red Rose, by young Prince of Wales, Grand dam Rose by Strode's bull, Grand dam Muley, a half blood by a bull of John Hare Powell's. Muley was a very superior cow of fine points, large size, and gave 32 quarts of milk per day, and made 12 lbs. of butter per week. She was selected by A. Bolmar, as the starting point in breeding, and the perfection his beautiful herd has been brought up to, evinces his judgment in her selection and subsequent crosses. Cherry No. 2 is also descended from her, being $\frac{1}{2}$ Durham, got by Traveler out of Rose. Cherry is a splendid cow, and on the loin, back and hips, and in her straightness behind, is seldom surpassed. She is also very fine in the bone.

This herd of cows and the complete cow-house & fixtures, are models in their way, and well worthy of attention.

The cow stable is 104 feet long, coiled and plastered, the floor all paved with brick. It is 24 feet wide, allowing a space for cows to stand, of 9 feet, with a passage of 5 feet wide behind, feed-trough 2 feet, and an entry 8 feet wide, fronting the stalls, and covered with mortar floor. There is a gutter behind the cows, graded so as to have a two feet fall in the length of the stable, and a sink at the lower end to catch urine, &c., which is mixed with soil, and carried out on the land. Nothing of this kind is allowed to be wasted. Each cow gets about half bushel of sugar beets per day. As they get old so as to be unprofitable for dairy purposes, they are fattened and slaughtered for the use of the school, weighing gene-

rally from 7½ to 800 lbs. One killed last fall, weighed 810 lbs. Their places are filled up by the young heifers coming in.

Water is thrown into the barn-yard by hydraulic ram, affording a constant supply.

The farm attached to the Institution, of over 100 acres, under the charge of his English farm manager, John Lee, is a pattern of clean tillage, neatness and productiveness not often met with. The pastures are well set with natural green grass, (*poa pratensis*), which is sustained by top-dressing. All the buildings and fixtures for cooking and steaming food, piggery &c., are of the most complete description. The latter, containing at this time 50 hogs, shall be described in our next. They are of the Chester county breed, and have been sold to various parts of the Union. A daguerreotype of one of his superior boars is in process of engraving, for next number of the Journal.

Guenon's Method of Choosing Milch Cows.

We give below a report of a Committee of the Philadelphia Agricultural Society, appointed to test the correctness of Guenon's theory, and also the result of the examination of some cows, made by John Nefflin, who appears to have verified and tested it by many years of observation. He has compiled a pamphlet, on the subject from which these extracts are taken, detailing the method of judging cows, with seventy-eight illustrations. It is published by C. B. Rogers, 29 Market st., Philad., and may be had of him, and also at the Agricultural Warehouse in this Borough; price 30 cts. Although this system was much ridiculed at first, we consider its principles as fully established by actual experiments. It has been *proven* to be correct, by many of our best dairymen in this section. Like many other things, however, it requires to be studied carefully, not merely glanced over in a cursory manner. The system has been discredited in some places, by persons mastering a few of the points, and undertaking to judge as if they had mastered the *whole*. It is not difficult to learn, but nice details are to be understood, and examined; and *time, practice*, and close observation, are necessary. With these, every farmer can easily comprehend the system, and save himself a heavy loss, in rearing and keeping poor milkers. Nefflin's work is substantially the same as Guenon's, somewhat reduced in size, and perhaps simplified, especially that part relative to crossing in breeding. On this head we quote the following, and recommend farmers to obtain both works.

REPORT

Of the Committee appointed to investigate the merits of Mr. John Nefflin's simplification of Guenon's method of testing the value of milch cows.

The Committee to whom was intrusted the examination of Guenon's system, very respectfully offer the result of their proceedings.

As the subject is one of great practical importance to the farmer, and no confidence in it can be created by vague generalities or isolated assertions on the part of those who may have given to it some attention, the Committee have endeavored by personal observation to verify the published statements. The fortunate arrival in this country of a German farmer, Mr. Nefflin, has offered a most happy opportunity of developing the nature and character of Guenon's observations, and the mode in which an adept in the science proceeds in his examinations. More than forty cows were examined by this gentleman in the presence of the members of the Committee. All the remarks of Mr. Nefflin, all the questions and answers, were taken down at the moment by Mr. Arthur Cannon, phonographic reporter; and all his statements were compared with those of the owners of the cows. In this form and in this critical mode of proceeding, the Committee thought it possible to remove every doubt they themselves or others might feel in the truth of the system, and be enabled to offer to the Society and the Agricultural community a clear and truthful history of this interesting discovery. After a full and particular investigation, carried on in the most searching manner, and sharpened by incredulity, the Committee have no hesitation in giving their adhesion, and expressing their concurrence in the views of Guenon. The precision and accuracy with which Mr. Nefflin describes the qualities of the animals, and the unhesitating manner in which he revealed all their properties, could not but impress the Committee with an entire reliance on his own skill, and a perfect confidence in the views of his teacher.

Still, though the Committee have no hesitation in offering this opinion, as the matter is one of the utmost importance, they deem it proper to recommend that if there remain any doubt on the part of the Society, as to the clear and complete demonstration of the truth of Guenon's observations, or if there are individual members who hesitate to concede to the point, the examinations should be continued until all scepticism, as far as possible, be removed.

A. L. ELWYN,
GEORGE BLIGHT,
ISAAC NEWTON,
JOHN WILKINSON,
SAMUEL WILLIAMS,
SAMUEL C. FORD.

The following certificates from Messrs. Ford and Wilkinson, whose cows were examined by Mr. Nefflin, are presented for the purpose of conveying to the reader a clear idea of the method of examination, and removing any doubts that might exist in regard to the practical application of the theory by every farmer. When it is remembered that Mr. Nefflin had no prior knowledge of the character of the cows submitted to his inspection, (being an entire stranger in the vicinity of Philadelphia), these testimonies from gentlemen of the highest respectability, furnish most conclusive evidence of the value of the discovery, and should at once commend it to the earnest attention of the agricultural community generally.

MR. FORD'S STOCK.

1st Cow. "Is a bastard of the 3d class, 2d order, and is an excellently made cow; her milk is very rich, of which she will yield 16 qts., but she dried suddenly after becoming pregnant."

I certify the above is a correct report of the qualities of the cow.

SAMUEL C. FORD.

21 Cow. "Is a bastard of the 3d class, 2d order, and has no mark; will calve about the 1st of March,

a month prior to which time, she will suddenly decrease in her yield of milk; when not in a state of pregnancy is a good milch cow."

The same as regards this cow.

SAMUEL C. FORD.

3d Cow. "Is of the 4th class, 2d order, the escutcheon of the fork shape, though not so perfect as it ought to be; will give 15 or 16 qts. of milk; about 5 or 6 weeks after calving her yield is most plentiful; her milk is very good."

Correct in every respect.

SAMUEL C. FORD.

MR. WILKINSON'S COWS.

No. 1. Belongs to the 2d class, and 2d order, and will yield from 16 to 18 qts. per day. She has not the two oval marks distinct, or she would rank first class. She will hold her milk up to the time of calving.

No. 2. "Belongs to the 2d order, and 1st class, and would, if she were as large as No. 1, give 20 qts. of milk per diem, but as it is, should give 15 or 16 qts."

No. 3. "belongs to 2d class and 3d order." The examiner here remarked that he supposed that Mr. W. had been near 20 years in getting his herd to such perfection, to which Mr. W. replied that he had not owned a cow in his dairy more than two years and three months, but that he had selected them on this system.

It is due to Mr. Wilkinson to say that the examiner, after he had examined all his cows, acknowledged that in all his long experience with cows, he had not in his whole life seen so large a number of such highly marked cows in any herd, as he found in Mr. W.'s herd of 8. Many other facts which must have been highly gratifying to Mr. W., were mentioned, but are necessarily omitted.

CERTIFICATE OF MR. WILKINSON.

The description given of my cows by Mr. Nefflin, after he examined them by his improved Guenon system, is in the main very correct, and satisfies me that this is the only reliable system by which cows can be selected.

JOHN WILKINSON.

Mount Airy Agr'l Institute, Germantown, Pa.

THE CROSSING OF BREEDS.

Crossing is the coupling of male and female animals, provided with milk-marks from different classes or orders, as also of different races.

This crossing produces two kinds of results. *Animals, having similar milk-marks, but from different races, particularly when the male belongs to a better race, may be coupled without injury to the yield of the milk.* But crosses between different classes always produce unfavorable results, and more so when the bull belongs to an inferior order, or even to an inferior class.

Such pairing of the sexes will reduce the breed to a lower class or order; it may even cause a great disfigurement in the milk-mirror, and make a classification impossible, when, as a matter of course, it becomes impracticable to ascertain the order to which the animal belongs.

Advantages can only be obtained by the crossing of different breeds or races, when the mirrors of both animals correspond, or still better, when the mirror of the male belongs to a higher order.

If however the object of crossing is to obtain a heavier stock of cattle, it is advisable rather to procure a male animal, which of course must be provided with the corresponding milk-marks. By this means the object of the crossing will be obtained sooner than by the purchase of a cow. Nefflin's Treatise.

BOOK NOTICES.

"SOIL OF THE SOUTH." This is a periodical of over thirty pages, published at Columbus, Georgia; well sustained in its several departments, both editorially, and by a large corps of able contributors. We delight to see agricultural papers so well stored with practical articles, as the "Soil of the South," in preference to long communications, on mere abstract subjects. This paper well deserves, and no doubt receives, extensive patronage.

"MICHIGAN FARMER." This is just such a paper as we should expect in such a quarter; spirited and overflowing with good things like its own exuberant soil. It seems to have sprung at once into general popularity, and has made sad havoc in Michigan among subscribers to papers, published in New York, and other States. We wish it the best success.

"WESTERN PLOUGH BOY," published at Fort Wayne, Indiana, No. 1, of Volume 1, is before us. This is a new paper called into being, by the wants of the farmers of that section; and from the specimen before us, we think will be fully equal to its task. We hope it will soon be "out of the woods" itself, with a long list of subscribers, and also be the means of assisting to make many a good clearing, and improved farm.

"JOURNAL OF AGRICULTURE," Boston, W. S. King, Editor, Mapes & Bartlett, assistants. This is one of our standard papers, most ably conducted, and which always repays examination. Some of our exchanges do to glance over, this requires *reading*, and elicits *thought*. The science as well as practice of agriculture, is elucidated in its pages. One of its editors, at least, if we are to judge, by some recent "passages" (not of the most amicable nature with the Genesee Farmer) writes with a *steel pen*. Unfortunately, it seems to have been "Mauling" the wrong man. One *subject*, however, does as well as another, to *exercise* upon. Should the Farm Journal ever come under the displeasure of the aforesaid *steel pen*, like the anecdote told of Captain Scott, we now offer to come down, and surrender at discretion *beforehand*. Is this satisfactory?

"WARDER'S WESTERN HORTICULTURAL REVIEW," Cincinnati, \$3 per annum. This is the able representative of the West, as the Horticulturist is of the East. It abounds and overflows with valuable matter, and is well appreciated wherever it goes, and that is pretty much all parts of the country. The Editor is fortunate in his location, and has a clear field before him, which he knows how to occupy. We studied Virgil's Georgics in the same school, some few years since, in Philadelphia. He knew how to make his mark, then, and his paper shows he can do it yet.

"SCIENTIFIC AMERICAN," a weekly Journal, published in New York by Munn and Co.; price \$2 per

annum. Though not exactly an agricultural paper, it is a standard work on scientific matters, is ably supported, abounds in illustrations in each number, and deserves the patronage of all business men, who wish to be posted up with the improvements of the day.

"OHIO FARMER," published at Cleveland, a weekly paper, \$2 per year. Thomas Brown, Editor. This is in its second volume, is of large newspaper form, combining news of the day, with a department appropriated exclusively to Agriculture and Horticulture. It is well illustrated, and deserves to be well supported.

"HORTICULTURIST," published at Rochester, and edited by Barry, price \$2. This well known periodical is fulfilling the expectation we formed of what it would be, under its present Editor. It fully maintains its high reputation, and no Fruit Grower, or resident in the country who wishes to beautify and adorn his home, with the attractions of choice trees and shrubbery, and flowers, and pleasant walks, should be without it. With its beautiful engraving, it is an ornament for the centre table, or the book case.

SAXTON'S RURAL HAND-BOOKS—Under this title, C. M. Saxton, Agricultural book publisher, New York, is issuing a series of cheap and useful little books that are worthy of a place in every farmer's library. We have before us, of these books already published:

THE AMERICAN KITCHEN GARDEN, containing practical directions for the cultivation of vegetables and garden fruits, by T. G. Fessenden.

THE COW, Dairy Husbandry and Breeding Cattle, by M. M. Milburn, author of the prize essays of the Royal Agricultural Society, England, edited by Ambrose Stevens, editor of Youatt and Martin on cattle.

EVERY LADY HEROWN FLOWER GARDENER—Addressed to the industrious and economical; containing simple and practical directions for cultivating plants and flowers in the garden and in rooms. By Louisa Johnson. Revised from the 14th London edition, and adapted to the use of American ladies. This book contains a deal of information that will be found very useful to cultivators of flowers. The American editor, however, committed an oversight in not reversing the "monthly notices" in chapter 10th. The climate of England differs so materially from our own, that "rules for planting" during the winter months *there* will be utterly inapplicable here. The price of these Hand-Books is uniformly 25 cents.

THE MILK TRADE IN NEW YORK AND VICINITY, by John Mullaly, with an introduction by R. T. Trall, M. D. Fowlers & Wells, N. York. Price 25 cents.

In this little volume we have an account of the sale of pure and adulterated milk, the daily and yearly consumption, the amount of property invested in the business, injurious effects of impure milk on children advice to country dairymen, &c. This work is worth the cost, if for nothing else than to learn the process

by which New York is supplied with milk by her own "City Dairymen." The operations of these large swill milk establishments, as detailed in this book, would be utterly incredible, if the facts were not too well established to admit of a doubt in the matter. We shall make some extracts from this work in our next number.

THE PROGRESSIVE FARMER: A scientific treatise on Agricultural Chemistry, the Geology of Agriculture; on Plants, Animals, Manures, and soils. Applied to practical agriculture by I. I. Nash, instructor of Agriculture in Amherst College, &c., &c. C. M. Saxton, New York. Price 50 cents.

A most useful and excellent publication, and one that we have no hesitation in recommending every farmer to purchase and carefully read and study. Our word for it, he will close the volume a better farmer than when he opened it.

WORK FOR THE MONTH.

Farm.

Sow clover seed on wheat fields, before the ground gets settled, at the rate of 5 or 6 quarts to acre. Timothy, Italian rye, green-grass, &c., may also now be sown, if not done in the fall. Use none but clean seed. Plough ground and put in oats crop as soon as the weather will admit, sowing not less than 2 to 3 bushels to acre. Pass a roller over after harrowing. Roll also mowing and recent pasture ground. This settles such roots as have been heaved up by winter. Sow plaster, one bushel to acre, over all the grass fields. This should be done this month, so as to have the benefit of moisture in the soil, and spring rains. The ammonia in rain water by combination with plaster, forms the non-volatile sulphate of ammonia. The effects of plaster are not so observable in a very dry season. Guano mixed with plaster may also be sown with advantage as a top dressing to grass lands, in a damp spell of weather, or just previous to rain; but super-phosphate of lime for this purpose is preferable. Haul out manure from barnyard for corn and potatoe crops, which are gross feeders, and require it; using for wheat crop in fall, guano and super phosphate of lime, this is making *more corn and more wheat*. Hire an extra hand or two for a few weeks, to accomplish this in season. The fermentation of the manure in the soil stimulates the early growth, and affords food for the maturing of the crop.

Plough deeply and subsoil corn ground. Top-dress winter grain which was not manured last fall. Plant potatoes for early crop, as soon as ground will admit. Give particular attention to cows which have calved, and ewes having lambed. Succulent food, such as turnips, carrots, beets, increases the flow of milk, and should always be given in addition to grain and hay. Feed the mothers well, is the true plan to make good lambs. Have a piece of early pasture ground to turn them on. Give extra feeding to working cattle. At leisure times, clean out thoroughly and whitewash poultry houses inside. Pick stones off mowing fields. Open the mouths of drains.

Fruit Orchard.

Attend to directions of last month, and perform what was omitted. Planting of trees in this section can be done during this month. See directions for planting in present number of Farm Journal. Select

the best varieties of fruit trees, and plant apples from 35 to 40 feet apart. Peach trees 20; also cherries, pears and plums. Dwarf pears, 10 to 12. Grafting may be done this month. Prepare grafting wax by mixing three parts of bees wax, three parts of rosin, and two of tallow. Plant out gooseberry and currant cuttings, first removing all the lower eyes. Trench and prepare the ground thoroughly with short manure. Grape vine cuttings should be planted with two eyes out of the ground, and in a soil rather sandy and moist. Trim grape vines at once, if not already done, and dig in around roots well rotted manure. Strip off of all trees, cocoons and larvae of insects, and apply wash before recommended. Apply salt to quince trees. Manure and clear up strawberry and raspberry beds, and make new plantations of each. Uncover such of the latter as were laid down last fall for protection.

Vegetable Garden.

The operations of the garden for this month must depend on the weather, and the condition of the ground. Such seeds as are not easily injured by frosts should be sown, such as peas, beets, parsnips, lettuce, radish-seed, onion-seed and sets, early carrots, asparagus seeds for new beds; and plant out two year old roots, cabbage-seed, &c. If the weather is suitable, cabbage, lettuce and cauliflowers may be planted out from frames. Uncover spinach, parsley, lettuce, &c. Trench ground for horse-radish, and set out pieces of old roots in rich soil. Dress up rhubarb, and manure thoroughly if not already done.

Give close attention to frames, &c., and cover on cold nights. Give air on fine days. Tomato, pepper and egg plants, which have grown thickly, should be pricked out into other frames. Start Lima beans in sods inverted, within doors, so as to be ready for planting out for early crops, so soon as the weather is settled. Set out beds of sage, sweet marjoram, winter savory, pennyroyal and other perennial herbs, by dividing the roots of old plants. Plant sweet potatoes in hot beds for sprouting, and cucumbers in frames for forcing.

As a general rule in gardening, make deep soil, manure heavily, and use plenty of seed. Better to thin out than to have to re-sow.

Flower Garden.

This is a busy month in the Flower Garden. Remove the covering from the roses, and all half hardy things. Loosen the fastenings of junipers, Irish yews, &c., by which they had been secured against winter storms. Prune roses and flowering shrubs. To prune roses, observe in the running varieties, to cut out as much old wood as possible, leaving only shoots of the previous summer's growth; shorten them one-third, and secure them firmly to the trellis or stake. Daily roses treat as above, only shorten their shoots two-thirds. The Hybrid perpetuals, and hardy garden roses should be pruned back to three or four eyes of the old wood. Roses will give more satisfaction by being closely pruned, than otherwise. In pruning shrubs, cut out any dead wood; thin out the branches where they crowd each other; shorten any straggling branches; by this means they will assume a good shape. Secure honeysuckles, clematis and other running vines firmly to their trellises. Manure liberally roses and flowering shrubs. This is a good time to plant all kinds of shrubbery and evergreens, and all kinds of hardy biennials and perennials. All such as have grown too large should be taken up, separated and replanted immediately. Remove the covering of leaves or litter from the tulip beds, or other articles which had been protected by

them during winter. Tulips, hyacinths and all other hardy bulbs may be planted early this month. Trim and replant box-edging. Manure and dig flower beds. Sweep clean and roll well lawns and grass plats. Laying sod should be attended to this month. Clean and roll gravel walks, and make everything look neat and clean.

Now is the time to raise annuals from seed for early blooming. For a selection of varieties, and the method of raising them, we would refer to an article published in the Journal of last month. Plants in windows which have done blooming, should be removed to a cooler place, and their shoots shortened considerably. Plants in cellars should have air admitted to them freely in mild weather, and be watered more liberally than during winter.

National Agricultural Society.

WASHINGTON, Feb. 3.

The Agricultural Society met at 9 o'clock this morning. Nineteen States were represented, and about 100 members were present. Various committees reported an amendment to the Constitution, changing the time of the annual meeting, to the last Wednesday of February, which was adopted.

Mr. Wheeler, of Mass., submitted a proposition to reduce the terms of admission, and annual subscription members. This was debated and rejected.

The following persons were then elected honorary members:—President Fillmore, Gen. Pierce, Samuel Appleton, Thomas H. Perkins, Robert G. Shaw, Edmund Ruffen.

The special order, a resolution to memorialize Congress to establish a department of Agriculture, was taken up.

Mr. Calvert supported it. It was due, he said, that this great interest, embracing four-fifths of our population, should be represented in the cabinet councils.

Messrs. French and Mapes briefly advocated the resolution, when it was adopted unanimously.

President Fillmore and Secretary Stewart now entered the Hall, and were received with marked attention, the members rising.

The Society then ballotted for officers, and the following were elected:—

President—Marshall P. Wilder. Vice Presidents—Maine, Ezekiel Holmes; New Hampshire, George W. Nesmith; Vermont, Frederick Holbrook; Massachusetts, B. V. French; Rhode Island, Josiah Chapin; Connecticut, S. D. Hubbard; New York, H. Wagner; New Jersey, J. J. Mapes; Pennsylvania, F. Watts; Delaware, C. P. Holcombe; Maryland, W. D. Bowie; Virginia, G. W. P. Custis; North Carolina, H. K. Burgwin; South Carolina, John Witherspoon; Georgia, P. M. Nighteagle; Alabama, Richard Jones; Mississippi, A. H. Beques; Louisiana, A. B. Romar; Ohio, Samuel Medary; Kentucky, Robert Mallory; Tennessee, Meredith P. Gentry; Indiana, Joseph A. Wright; Illinois, Stephen A. Douglass; Missouri, R. Atchison; Arkansas, T. B. Flournoy; Michigan, J. C. Holmes; Florida, Simmons Baker; Texas, Thomas J. Rusk; Iowa, M. F. Colbaugh; Wisconsin, A. C. Ingham; California, M. Horner; District of Columbia, Joseph H. Bradley; New Mexico, J. M. Baird; Minnesota, H. H. Sibley; Oregon, Joseph Lane; Utah, Jos. S. Hayes.

Executive Committee—C. B. Calvert, J. D. Weston, Arthur Watts, John A. King, Moses Newell, Richard Peters.

Corresponding Secretary—J. G. G. Kennedy.

Recording Secretary—W. S. King.

Treasurer—Wm. Selden.

The Treasurer reported that the funds of the Society had been augmented nearly \$2000 since his arrival yesterday.

Dr. Ewyn presented a paper written by Prof. Booth, of Philadelphia, and arguing that the analysis of soils in the present state of Chemistry, is of no immediate practical value to the farmer.

Prof. Mapes said he stood ready to refute every position assumed in the paper, and stated many interesting facts against the theory. After an animated discussion, the paper was withdrawn.

On Motion of Mr. Poore, circulars were directed to be addressed to the Home and Foreign Agricultural Societies, proposing an interchange of publications.

Major Wheeler suggested the propriety of memorializing Congress to establish a National Agricultural School. The subject was deferred until the next annual meeting.

EVENING SESSION.

The Society re-assembled at 7 o'clock this evening. Professor Mapes delivered an interesting lecture on fertilizers. After which a resolution, complimenting the officers and the reporters, was passed. The Society then adjourned to the last Wednesday in February, 1854. The Hon. Samuel Medary from Ohio, participated in the deliberations.

Pennsylvania Horticultural Society.

The stated meeting was held, as usual, on Tuesday evening, Feb. 15, in the Chinese saloon. The Pres't in the chair. To the numerous visitors in attendance on the occasion, the exhibition assuredly afforded much gratification. Many choice specimens of green house plants were shown in the collections from four of our best conservatories. Among them a fine plant of the *Acacia pubescens* in full flower, from Gen. Paterson's house, stood prominent. A very well grown specimen of *Chorozema varium* in rich bloom, was seen in Wm. W. Keen's display from West Philadelphia. Frederick Lennig's gardener exhibited a fine table of Camellias and another of choice plants. Among the Camellias was a plant of the famed Ducca Visconti, displaying a beautiful flower and seen for the first time. On the table furnished by R. Buist's foreman were many choice plants, two of which were not seen before at our meetings, the *Euphorbia candidissima* and *E. Minuta*. In Mr. Cope's collection of select plants were a handsome *Abutilon Striatum*, and a new species, *Begonia albo-coccinea*. Cut flowers of Camellias were brought from Mr. Buist's, Mr. Sherwood's, Mr. Lennig's, and others. Designs and baskets of cut flowers were presented from C. Cope, R. Cornelius, and R. Kilvington.

Thomas Hancock exhibited fine Easter Beurre Pears. Mrs. Smith's gardener, five dishes of Pears. M. W. Roe, two kinds of Apples; and Robert Cornelius' gardener, three varieties of Apples.

On the vegetable tables were to be seen, from Mr. Cope's forcing houses, Cucumbers, French Beans, Tomatoes, and Mushrooms. From Mr. Fisher's—fine Cucumbers, Mushrooms, Lettuce, &c. From Robert Cornelius', many good culinary articles. Thomas F. Croft presented a fine display of Rhubarb.

Premiums awarded were as follows:—
Camellias—For the best six plants, to John Pollock, gardener to F. Lennig; for the best six cut flowers, to Thomas Fairley, foreman to R. Buist; for the second best, to Isaac Warr, gardener to John Sherwood. *Primula sinensis*—for the best six plants, to Benjamin Gallis. *Plants in Pots*—for the best twelve, to John Pollock, F. Lennig's gardener; for the second best, to

Wm. Gracey, gardener to Wm. W. S. Koen, West Philadelphia; for the third best, to Thomas Fairley, R. Buist's foreman. *Plant in a Pot*—for the best, the *Acacia pubescens*, to Isaac Collins, gardener to Gen. Patterson. Plants shown for the first time, a special premium of \$2 to R. Buist's foreman, for, *E. pacris minnata* and *E. candidissima*. Another of \$1 to Thos Meehan, gardener to C. Cope; for *Begonia alba-coccinea*, *Boquet design*, for the best, to Thos. Meehan; for the second best, to Thomas Meghran gardener to R. Cornelius. *Basket of cut flowers*—for the best, to Wm. Hamill, gardener to Mr. Fisher; for the second best, to Robert Kilvington. And for a beautiful display of Hyacinths, a special premium of \$2 to Peter Raabe. The Committee specially notice a fine specimen of the Camellia variety of Dueca Visconti from F. Lennig's, an Italian variety, and shown for the first time. Also a plant of the cypripedium acule, a native, shown by H. C. Hanson.

Pears—For the best ten specimens, Easter Buerre, to Thomas Hancock; for the second best, Glout Moreau, to F. Guoin, gardener to Mrs. J. B. Smith.

Apples—for the best ten specimens, Newtown Pippin, to N. W. Roe, for the second best, the same kind, to R. Cornelius' gardener.

Vegetables—For the best display of amateur gardeners, to Wm. Hamill, gardener to Mr. Fisher; for the second best to Thomas Meghran, gardener to Robert Cornelius; and a special premium to Thomas S. Croft for a very handsome display of Rhubarb, containing five named varieties.

An interesting ad interim report from the Fruit Committee was submitted of the objects shown before them since the last stated meeting.

The President appointed the Committees for the ensuing year.

Ordered. That the thanks of the Society be tendered to M. P. Wilder, of Massachusetts, for the gift of a copy of Dr. Harris's Report on Insects injurious to Vegetation, last edition, and the Proceedings and Reports of the Massachusetts Board of Agriculture.

Northumberland County Agricultural Society.

The Northumberland county Agricultural Society was organized on the 24th of May, 1851.

Samuel Hunter was elected its first President, Joseph R. Priestly was next chosen, and after him, the present incumbent.

The following is a list of its officers:

PRESIDENT—James Cameron.

VICE PRESIDENTS—George C. Walker, John Montgomery, Amos E. Kapp, Jacob Seasholtz, William B. Kipp, Jacob Hilbish, David L. Ireland.

CORRESPONDING SECRETARY—David Taggart.

RECORDING SECRETARY—Wm. J. Greenough.

TREASURER—Wm. L. Dewart.

BOARD OF MANAGERS—James Pollock, Alexander Jordon, Jesse C. Horton, Samuel Shannon, William Forsythe, James Eckman, William Fegely, William Deppen, Phillip Oberdorf, A. J. Fetzer, Jos. Weitsel, Felix Mourer, Samuel John, Phillip Spatz, Gideon Kremer, James Beard, Sr., Charles Riddle.

The first fair was held at Sunbury, on the 8th of October, 1851. The exhibition was creditable, and called out an unexpectedly large concourse of people.

The second fair came off at Northumberland on the 8th and 9th of October, 1852. This far exceeded the hopes of its most sanguine projectors, both in regard to the character of the exhibition and the numbers that attended it.

The next will be held at Milton early in October. Each year several hundred dollars have been paid

out in prizes, and yet, pecuniarily, the Society holds its head above water, and looks forward to still greater achievements. It has already been the means of stirring up the neighboring counties. Union, Montour and Columbia have organized flourishing and energetic Societies.

Annual Meeting of the Susquehanna county Agricultural Society.

The annual meeting of the Society was held on Wednesday evening, January 19th, 1853. The president, William Jessup, in the chair.

The report of the Treasurer was presented, read, and on motion adopted and directed to be printed. On motion, a committee of five were appointed to nominate officers, viz: Franklin Lusk, Thomas Johnson, John F. Deans, Henry Drinker and Hyde Crocker.

The report of the committee on vegetables was read, recommending a special premium to Robert Kent for potatoes, 173 bushels per half acre. On motion of William H. Jessup, the Society awarded to Mr. Kent one year's subscription to the Pennsylvania Farm Journal.

The report of the Committee to nominate officers was read, and on motion the following officers were appointed for the ensuing year:

PRESIDENT—Caleb Carmalt.

VICE PRESIDENTS—Thomas Nicholson, Thomas Johnson.

CORRESPONDING SECRETARY—Samuel A. Newton.

RECORDING SECRETARY—William H. Jessup.

TREASURER—George Fuller.

MANAGERS—Hon. William Jessup, Henry Drinker, Gilbert Warner, Martin L. Catlin, John F. Deans, Hiram C. Concklin.

On motion of Col. F. Lusk, the following resolution was adopted:

Resolved, That the members of the Susquehanna county Agricultural Society hereby cordially acknowledge their indebtedness to the Honorable William Jessup, (late President of said Society,) for his unremitted exertions and effective services in promotion of the interests of said society.

On motion, the Society awarded discretionary premiums to George Walker for 160 bushels of corn raised to the acre, and to Hyde Crocker for a very large yield of the same.

On motion, the Society adjourned to meet on Tuesday evening, of the first week of April Court.

Wm. H. JESSUP, Sec'y.

State Poultry Society.

We have received a pamphlet containing the Constitution and By-Laws of the State Poultry Society of Pennsylvania. The following are the officers of the Society for 1853:

President—John Price Wetherill.

Vice Presidents—James Andrews, Wm. M. Swain, James L. Claghorn, Samuel T. Altamus, John Swift, William H. Stewart.

Treasurer—William Stevenson.

Corresponding Secretary—Robert A. Smith.

Recording Secretary—James Le Fevre.

Board of Managers—William Struthers, Jesse M. Williams, John B. Perry, Charles K. Engle, Edwin R. Cope, John Oakford, Fredk. G. Wolbert.

Executive Committee—Jesse M. Williams, C. K. Engle, Fredk. G. Wolbert.

Counsellors—Hon. William D. Kelly, Christopher Fallon, Esq., Benj. H. Brewster, Esq., Const. Guillou, Esq.

**End of
Volume**